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TRANS-CANADA PIPE LINES LIMITED

Economic Feasibility Report Dated September 1956
With Supplements
As Prepared for Initial Financing

VOLUME II



COMMONWEALTH

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TRANS-CANADA PIPE LINES LIMITED

Study Of Gas Requirements
Of Markets To Be Served

DECEMBER, 1956

COMMONWEALTH



SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

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SERVICES • INC.
NEW YORK, N.Y. • JACKSON, MICH.
WASHINGTON, D.C. • HOUSTON, TEX.

300 PARK AVENUE, NEW YORK 22, N.Y.

December 7, 1956

Mr. Francis Kernan
White, Weld & Co.
40 Wall Street
New York 5, N. Y.

Dear Mr. Kernan:

We are transmitting herewith our report entitled "Study Of Gas Requirements Of Markets" for Trans-Canada Pipe Lines Limited, dated December, 1956. This report is in further supplement to our "Report On Economic Feasibility Of Proposed Natural Gas Pipeline Project" of Trans-Canada, dated September, 1956, and the Supplement of October, 1956 to that report.

The subject report is a detailed current review of the estimated gas sales of the Trans-Canada Pipe Lines Limited project, and consists of the text of the report and an attached Appendix containing supporting data on which the estimated natural gas requirements of the proposed individual distribution company customers of Trans-Canada are based.

Our conclusions, set forth in more detail commencing on page 40 of the report, are, in general, that the estimated over-all natural gas requirements of the markets proposed to be served set forth in our earlier reports are supported by this detailed study, and are more than sufficient to permit operation of the pipeline, if developed in accordance with the construction program presently proposed by Trans-Canada, at its full annual sales capacity, commencing in the second year of full operation under Plan I, and in the first year of full operation, under Plan II.

If any questions should arise with regard to the data or information set forth in the market study, please do not hesitate to get in touch with us.

Yours very truly,

COMMONWEALTH SERVICES INC.

Ralph S. Orme
Ralph S. Orme
Natural Gas Consultant

RSO:AK

TRANS-CANADA PIPE LINES LIMITED

Study Of Gas Requirements
Of Markets To Be Served


DECEMBER, 1956

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TRANS-CANADA PIPE LINES LIMITED

STUDY OF GAS REQUIREMENTS OF MARKETS TO BE SERVED

GENERAL

This is a detailed report of our current review of the estimated gas sales of Trans-Canada Pipe Lines Limited as set forth in our September, 1956 "Report On Economic Feasibility of Proposed Natural Gas Pipeline Project" of Trans-Canada Pipe Lines Limited and the supplement of October, 1956.

We have studied all available current market information, made field studies of the major markets, discussed individual distribution company's plans with their officials and have reviewed Trans-Canada's signed sales contracts. From this we have developed estimates of the maximum day and annual gas purchase requirements for each of Trans-Canada's customers for both the initial year of partial operation and the following five years of full pipeline operation. In our opinion, these estimates represent a conservative forecast of the market that may be developed at the current cost of competitive fuels and with natural gas priced at Trans-Canada's proposed tariffs.

In general, we expect that the greatest development of residential gas load will be in the field of home heating. In the areas to be served, coal serves a greater percentage of the house-heating fuel market than is experienced in comparable cities in the United States. However, oil is the domestic heating fuel against which gas must compete. Public acceptance of automatic heating is high. As per capita income has increased in Canada during recent years conversions to oil heating have taken place at an accelerating rate. New homes have automatic heat. All of these factors coupled with competitively priced

gas heating rates should result in a rapid and successful development of the home-heating market. To a somewhat lesser extent water heating should find considerable acceptance particularly in the new building field where the total investment required of the home builder in furnishing gas furnace and a gas automatic water heater is considerably less than furnishing an oil furnace and an electric automatic water heater. With the generally low domestic electric rates available in Canada it is expected that electricity will retain the major portion of the domestic cooking load.

Estimates of commercial load to be attached by the distribution companies are conservative and represent principally those loads where gas is superior to competitive fuels and in the heating field where gas will displace high-cost light fuel oils.

Major industrial customers are discussed in detail in the description of each market.

Our detailed estimates are set forth in the Appendix of this report.

SASKATCHEWAN POWER CORPORATION

The Saskatchewan Power Corporation is presently inaugurating natural gas service into the communities of Swift Current, Moose Jaw, and Regina, Saskatchewan to serve both general service and industrial customers. The company is currently laying a 12" gas transmission line from a natural gas field in Saskatchewan near the Alberta border to provide a portion of the natural gas required for the three communities. The balance of its requirements are

expected to be purchased from Trans-Canada and contract negotiations are currently in progress. Slightly more than half of the gas to be used in the communities will be boiler fuel for three power plants owned and operated by the Power Corporation. The estimates of total annual gas requirements were furnished by the Fish Service Corporation.

Since gas is to be purchased from Trans-Canada on a demand-commodity rate, encouraging the development of an annual load factor as high as is possible, and since local gas is understood to be limited as to reserves and is customarily purchased on a flat rate per Mcf, making it the most economical source of gas to use for meeting peak-load requirements, it is estimated that the Saskatchewan Power Corporation will purchase gas from Trans-Canada on as high a load factor as is practicable. It has been assumed that the purchases from Trans-Canada will be on a 95% load factor.

All three communities have participated in the growth and expansion of Western Canada. Population data is as follows:

| | <u>1941</u> <u>Census</u> | <u>1951</u> <u>Census</u> | <u>1954</u> <u>Estimate</u> |
|---------------|------------------------------|------------------------------|--------------------------------|
| Moose Jaw | 20,753 | 24,355 | 27,000 |
| Regina | 58,245 | 71,319 | 80,000 |
| Swift Current | 5,594 | 7,458 | 10,500 |

Using gas available from Saskatchewan fields, gas service was started in Swift Current during August, 1956, and in Moose Jaw in September, 1956.

The Saskatchewan Power Corporation is experienced in natural gas distribution operations, having provided natural gas service to fifteen cities and villages, including Saskatoon, since 1953.

It is believed the indicated annual purchase requirements from Trans-Canada of the Saskatchewan Power Corporation are conservative and it is expected that final negotiations of the contract may result in a commitment in excess of the volumes shown herein.

PLAINS WESTERN GAS AND ELECTRIC COMPANY

Plains Western Gas and Electric Company holds a franchise and is currently building a distribution system to serve the community of Brandon, Manitoba. Brandon was visited for purposes of inspecting the community and the company's estimates were reviewed in detail in the field at that time and some adjustments made for the purpose of this report.

Brandon is the business center for a large trading area of western Manitoba serving as a shipping center for agricultural produce being moved to market and as a distribution center for manufactured goods. It is an extremely stable community, experiencing a steady rate of growth as shown by the following population data:

| | <u>1941 Census</u> | <u>1951 Census</u> | <u>1955 Estimate</u> |
|------------------------|--------------------|--------------------|----------------------|
| Population of Brandon: | 17,383 | 20,598 | 23,827 |

It is estimated that approximately 75% of the homes in Brandon are heated with solid fuel. This represents an excellent potential market for residential sales.

Plains Western Gas and Electric Company is owned and managed by experienced personnel. The lower rates available from Trans-Canada at the western end of the line will permit correspondingly low retail gas rates, encouraging rapid development of the market.

MANITOBA POWER CORPORATION

A steam-electric generating station is being constructed by the Manitoba Power Corporation North of Brandon and near the lateral line proposed to be constructed by Plains Western Gas and Electric Company to serve Brandon. In the first few years of the plant's operation the Manitoba Power Corporation plans to use the plant to swing the winter-time peaks of its electric system. Although such a load occurs at the same time as Trans-Canada's firm peak requirements, the location of this plant along the Alberta-Winnipeg section of the Trans-Canada line would make the rendering of service appropriate for a limited period of time. The flexibility of gas as a boiler fuel makes its use particularly desirable with a plant carrying great variations in loads. Availability of natural gas would also allow the Power Corporation to defer an investment in a railroad siding and lignite handling equipment, estimated to be in excess of \$100,000, for a period of two years.

As the annual load factor of the steam plant increases a greater proportion of the annual fuel requirements will be supplied by lignite.

Trans-Canada presently intends to sell for delivery to the corporation on a firm basis in the first two years and an interruptible basis in the second two years after which time the gas will be sold in the higher revenue-producing zones further East.

INTERCITY GAS COMPANY

Intercity Gas Company has franchises and provincial permits to provide gas service in the central Manitoba communities of Portage la Prairie, Rivers,

Neepawa, and Hamiota. All relatively small in size, the communities serve as trading centers for the prosperous agricultural areas in which they are situated. In addition, Rivers is the site of a large Royal Canadian Air Force Base.

The company is owned by Northland Utilities Limited of Alberta and Osler, Hammond, and Nanton Investment Company of Winnipeg. Distribution systems are currently under construction in Portage la Prairie and Neepawa. The communities were visited and basic data related to the company's estimates of requirements were reviewed and some adjustments made.

WINNIPEG AND CENTRAL GAS COMPANY

The Winnipeg and Central Gas Company at the present time supplies coke-oven gas, propane-air and propane to portions of Winnipeg. The high cost of manufacturing gas has prevented aggressive development of the potential market. Upon the arrival of natural gas the company plans to embark on a carefully planned development program designed to extend facilities to serve the greater Winnipeg area.

Canada's fourth largest city, Winnipeg is the gateway to western Canada. It is a major rail terminal with a concentration of meat packing plants, grain storage elevators and flour mills, and the largest commercial business center between Toronto and the Pacific coast.

Census data reflects the healthy growth of the city and its environs.

| | <u>1941</u> <u>Census</u> | <u>1951</u> <u>Census</u> | <u>1955</u> <u>Estimate</u> |
|-------------------------------------|------------------------------|------------------------------|--------------------------------|
| Population of Winnipeg | 221,960 | 235,710 | 249,069 |
| Population of Metropolitan Winnipeg | 299,937 | 354,069 | 400,000 |

Approximately 4,000 oil burners are currently being installed annually in Winnipeg. The general growing acceptance of automatic heat plus the appeal of gas heating to the new building market coupled with gas priced below the current level for fuel oil strongly indicates profitable and successful expansion of the residential gas market.

The major industrial fuel user of the area, a plant of Canada Cement Company, has already signed a contract to purchase 5,000 Mcf per day of firm gas and 5,000 Mcf additional per day of seasonal gas.

In reviewing the gas sales estimates for Winnipeg and Central Gas Company, the area was visited and considerable discussion held with officials of the company. Reports and studies prepared by Arthur D. Little, Inc., were reviewed in detail together with basic data and estimates prepared by the company.

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

The Northern Ontario Natural Gas Company Limited is a new company which proposes to serve, either directly or through a subsidiary company, The Twin Cities Natural Gas Company, Limited, 34 communities from Kenora, Ontario close to the Manitoba border to Barrie, Ontario located 43 miles north of Toronto. The company has divided its service area into three zones with boundaries that are identical with the rate zone boundaries of Trans-Canada. Each area is discussed separately in detail below.

WESTERN ONTARIO ZONE

The Northern Ontario Natural Gas Company Limited proposes to serve Kenora directly and the five communities of Dryden, Port Arthur, Fort William, Geraldton, and Nipigon through its subsidiary, The Twin Cities Natural Gas Company, Limited. Northern Ontario Natural Gas Company Limited will purchase the full natural gas requirements for the six communities from Trans-Canada.

The size and growth of the communities are reflected in the following census figures.

| | <u>1941</u> <u>Census</u> | <u>1951</u> <u>Census</u> | <u>Latest</u> <u>Estimate</u> |
|--------------|------------------------------|------------------------------|----------------------------------|
| Kenora | 7,745 | 8,695 | 9,317 |
| Dryden | - | - | 3,104 |
| Port Arthur | 24,426 | 31,161 | 35,305 |
| Fort William | 30,585 | 34,947 | 38,162 |
| Geraldton | - | - | 3,114 |
| Nipigon | - | - | 1,750 |

Port Arthur and Fort William are important iron ore and grain shipping centers. The other communities are local trading centers and serve as residential communities for the workers of the large pulp and paper mills.

The residential gas sales anticipated by Northern Ontario Natural and Twin Cities Natural are expected to come principally from the development of residential heating and to a lesser extent water heating. Only a moderate saturation of gas cooking is expected. The estimates for commercial load are conservative and recognize the fact that most of the communities do not have large commercial areas.

The great volume of natural gas sales to be realized in the Western Ontario Zone is expected to develop serving the fuel requirements of the huge pulp and paper mills in this area. Most of the mills are currently undergoing vigorous expansion programs in common with the entire Canadian pulp and paper industry.

Kenora is the site of the Minnesota and Ontario Paper Company. The company is presently burning Saskatchewan lignite at an approximate cost of \$7.00 per ton including \$2.00 per ton handling charges. Assuming efficiency with gas of 80% and with lignite of 78% the equivalent gas price is 49.8¢ per Mcf. The paper company is currently installing capacity to increase their fuel consumption to a rate of 170,000 tons of lignite per year. Minnesota and Ontario represents a potential annual load, if the full fuel requirements are furnished by natural gas, of 1,783,000 Mcf in 1957-58 and 2,597,000 Mcf in the ensuing years.

The Dryden Paper Company at Dryden is also using lignite at the same cost of \$7.00 per ton. The total fuel requirements of the company are estimated to be 1,067,000 Mcf in 1957-58 and 1,615,000 Mcf in the following years.

There are four pulp and paper mills in Fort William and Port Arthur. The Mission Bay Plant of the Abitibi Paper Company is currently operating on

Bunker C oil which will cost 8.77¢ per Imperial gallon for 1957 delivery. Assuming equal efficiencies for Bunker C oil and gas, the equivalent price of natural gas is 48.5¢ per Mcf. The Abitibi Company estimates their total potential use of natural gas in the Mission Bay Plant to be 1,476,000 Mcf per year.

The Thunder Bay Plant of Abitibi is currently operating on powdered coal at an estimated price of \$11.17 per ton including \$1.00 per ton handling charges. Assuming efficiency of powdered coal operation at 83% and gas at 80% the equivalent gas price is 39.3¢ per Mcf. Abitibi estimates its total potential gas requirements at the Thunder Bay Plant to be 582,650 Mcf per year.

The Great Lakes Pulp and Paper Company is also operating on powdered coal at an estimated price of \$10.50 per ton including \$1.00 per ton handling charges. The equivalent price for natural gas is 36.9¢ per Mcf. The reason for the lower coal price at the Great Lakes Pulp and Paper Company is that the company owns its own colliers. The company has purchased new boilers as part of an expansion program which will result in their fuel consumption reaching an annual rate of 185,000 tons of coal in the calendar year of 1959. The company lacks adequate fuel storage space and as a result will not be able to expand to this level of operation unless their present solid fuel supply can be supplemented with a fuel which does not require storage. It is estimated that the total fuel requirements of the Great Lakes Pulp and Paper Company approximate 4,260,000 Mcf in 1957-58 and 5,254,000 Mcf in the later years.

The Provincial Paper Company is located at Port Arthur. This company burns powdered coal at an approximate cost of \$11.85 per ton including \$1.00 per ton handling charges. The equivalent price of natural gas is 41.7¢ per Mcf. The

total gas requirements of the Provincial Paper Company are estimated to be 710,000 Mcf in the first year and 994,000 Mcf in the later years.

Located at Nipigon, The St. Lawrence Pulp and Paper Company is also planning an expansion program. Presently using powdered coal at an equivalent price of 36.9¢, the company total potential gas requirements are estimated to be 1,988,000 Mcf annually.

The total fuel requirements of the seven companies described above total 11,867,150 Mcf in 1957-58 and 14,507,000 Mcf in the following years. The Northern Ontario Natural Gas Company is presently proposing to serve these mills on three different rates: firm gas at 40.5¢, seasonal gas at 36¢ and interruptible gas at 34¢.

The lignite loads at Kenora and Dryden, the oil load at Abitibi's Mission Bay Mill, the coal load at Provincial and the added capacity at Great Lakes are the loads which should be attached most readily. At interruptible rates portions of the other loads should be practicable. Northern Ontario does not contemplate displacing more than half of the coal presently being consumed in order to avert precipitating a price war.

NORTHERN ONTARIO ZONE

The Northern Ontario Natural Gas Company Limited proposes to serve the communities of Hearst, Kapuskasing, Smooth Rock Falls, Cochrane, Iroquois Falls, Ansonville, Timmins, Porcupine, South Porcupine, Schumacher, Matheson, Ramore, Kirkland Lake, Englehart, New Liskeard, Haileybury, Cobalt, North Bay, Sudbury, Sturgeon Falls, Copper Cliff and Lively. The size and growth of these communities are indicated from the census figures listed below:

| <u>Community</u> | <u>1941 Census</u> | <u>1951 Census</u> | <u>Latest Estimate</u> |
|-------------------|------------------------|------------------------|----------------------------|
| Hearst | - | - | 2,060 |
| Kapuskasing | 3,400 | 4,971 | 5,321 |
| Smooth Rock Falls | - | - | 2,200 |
| Cochrane | - | 3,352 | 3,563 |
| Iroquois Falls | - | - | 1,400 |
| Ansonville | - | - | 1,300 |
| Timmins | 28,790 | 27,743 | 26,713 |
| Porcupine | - | - | 1,013 |
| South Porcupine | - | - | 5,650 |
| Schumacher | - | - | 3,300 |
| Matheson | - | - | 800 |
| Ramore | - | - | 800 |
| Kirkland Lake | - | 18,440 | 18,000 |
| Englehart | - | - | 1,582 |
| New Liskeard | - | 3,972 | 3,998 |
| Haileybury | - | 2,265 | 2,367 |
| Cobalt | - | 2,200 | 2,407 |
| North Bay | 15,599 | 17,944 | 20,160 |
| Sudbury | 32,203 | 42,410 | 46,125 |
| Sturgeon Falls | - | 4,953 | 5,518 |
| Copper Cliff | - | - | 3,935 |
| Lively | - | - | 2,400 |

Sudbury is called "The Nickel Capitol of the World," producing 85% of the free world's output of nickel, valued at some \$390,000,000 annually. It is the trading center for a market area of 100,000 population and includes besides the nickel smelting industries some lumbering and light manufacturing. Sudbury is presently contemplating the annexation of several small adjacent communities which Northern Ontario Natural would propose to serve.

North Bay is the gateway to Northern Ontario and is important as an outfitting center for hunters and fishermen going farther north. Timmins and Kirkland Lakes are the sites of concentrations of small gold mining operations. The rest of the communities proposed to be served are all relatively small in size and are mill towns, mining centers or local trading areas. All are situated adjacent to the route of the pipeline.

It is expected that the residential load that will be attached will be primarily heating. The entire Northern Ontario Zone is an area of extremely high fuel prices since all fuel must come in by rail over considerable distances. It is expected that considerable water-heating load may be developed also, but relatively little gas cooking. Other than in the larger cities the commercial loads are relatively small.

The firm industrial loads included in the exhibits in the Appendix contemplate serving the industries listed below:

| <u>Name</u> | <u>Present Fuel</u> | <u>Annual Requirement Mcf Of Natural Gas</u> | <u>Equivalent Price Of Natural Gas ¢ Per Mcf</u> |
|---------------------------------|---------------------|--|--|
| <u>Kapuskasing</u> | | | |
| Central Steam Plant | Bituminous Coal | 42,500 | 52.4 |
| <u>Timmins</u> | | | |
| Timmins Gold Mines | Bituminous Coal | 416,973 | 59.1 |
| | Anthracite Coal | 18,625 | 100.7 |
| | Light Oil | 55,568 | 148.2 |
| | | <u>491,166</u> | |
| <u>Kirkland Lake</u> | | | |
| Kirkland Gold Mines | Bituminous Coal | 157,645 | 59.2 |
| | Light Oil | 10,603 | 137.1 |
| Heath & Sherwood Ltd. | Coal | 1,336 | 99.2 |
| Kirkland District Hospital | Stoker Coal | 15,877 | 68.7 |
| Kirkland Lake Machine & Welding | Stoker Coal | 1,179 | 87.8 |
| | | <u>186,640</u> | |
| <u>New Liskeard</u> | | | |
| Wabi Iron Works | Coal | 10,349 | 55.5 |
| | Light Oil | 2,882 | 147.1 |
| | | <u>13,231</u> | |
| <u>Cobalt</u> | | | |
| Cobalt Chemical Ltd. | Coal | 28,296 | 58.9 |
| | Light Oil | 22,334 | 118.2 |
| | Propane | 1,990 | 252.0 |
| | | <u>52,620</u> | |

| <u>Name</u> | <u>Present Fuel</u> | <u>Annual Requirement Mcf Of Natural Gas</u> | <u>Equivalent Price Of Natural Gas ¢ Per Mcf</u> |
|--------------------------------|---------------------|--|--|
| <u>North Bay</u> | | | |
| Craig Bit.Co. Ltd. | Light Oil | 25,380 | 108.2 |
| Canadian Longyear Ltd. | Coal | 3,851 | 65.4 |
| | Light Oil | 138 | 239.3 |
| Rahn Metals, Ltd. | Coal | 2,620 | 83.9 |
| | Light Oil | 16,920 | 95.1 |
| Inspiration Mining Ltd. | Light Oil | 1,690 | 106.3 |
| | | <u>50,599</u> | |
| <u>Sudbury</u> | | | |
| Dominion Tar & Chemical Ltd. | Coal | 131,000 | 64.8 |
| Noront Steel Construction Ltd. | Light Oil | 8,714 | 114.0 |
| CeCutti Bakery | Light Oil | 12,690 | 120.0 |
| Palm Dairy | Coal | 9,563 | 58.2 |
| | | <u>161,967</u> | |

As in the Western Ontario Zone the principal natural gas load to be developed is involved in serving the large industries described below.

The Spruce Falls Paper Co. at Kapuskasing is presently burning powdered coal at an approximate cost of \$13.33 per ton, including handling charges of \$1.00 per ton. Assuming efficiency with powdered coal of 83% and with gas of 80% the equivalent price per Mcf for natural gas is 50.5¢. The total fuel requirements of the plant are estimated to be 2,840,000 Mcf annually. The Spruce Falls Paper Co. has evidenced an interest in purchasing at least one third of their annual fuel requirements on a firm basis.

The Abitibi Pulp and Paper Co. owns and operates three mills in the Northern Ontario Zone. All are presently using powdered coal. The plant at Iroquois Falls pays about \$13.33 per ton including \$1.00 per ton of handling charges or an equivalent gas price of 50.5¢ per Mcf. The plant's annual fuel requirements, as furnished by Abitibi, total 2,414,000 Mcf annually. Another

plant, located at Smooth Rock Falls, pays approximately \$13.60 per ton of coal including \$1.00 per ton of handling charges. This is equivalent to 51.5¢ per Mcf natural gas. The annual fuel requirements of the Smooth Rock Plant total 994,000 Mcf annually. The third plant of Abitibi, Sturgeon Falls, pays approximately \$12.78 per ton for coal including \$1.00 per ton of handling charges. The equivalent price for natural gas is 48.4¢ per Mcf. The Sturgeon Falls' requirements for natural gas total 1,136,000 Mcf per year.

The International Nickel Co. operates a large plant at Copper Cliff, presently operating on Bunker C oil. The present annual fuel requirements approximate 3,038,670 Mcf at an extremely high load factor. Oil at its present price of 8.7¢ per Imperial gallon is equivalent at equal efficiencies to 48.0¢ per Mcf for natural gas. In addition, the International Nickel Co. (or associates) proposes to build an elemental sulphur plant which will go on the line in 1960/61. The estimated annual fuel requirements are 4,653,700 Mcf in 1960/61 and 6,205,000 Mcf thereafter.

In addition to the loads described above there are other large industries which Northern Ontario is presently considering serving. The entire area is experiencing a dramatic industrial boom and should the present pace continue it is reasonable to expect that the annual volumes of gas sold could exceed the estimates of annual requirements as set forth in the Appendix.

CENTRAL ONTARIO ZONE

The Northern Ontario Natural Gas Company, Limited proposes to serve the five communities of Barrie, Orillia, Gravenhurst, Bracebridge and Huntsville.

Population data for these communities is listed below:

| | <u>1941 Census</u> | <u>1951 Census</u> | <u>Latest Estimate</u> |
|-------------|--------------------|--------------------|------------------------|
| Barrie | 9,725 | 12,514 | 16,002 |
| Orillia | 9,598 | 12,110 | 12,796 |
| Gravenhurst | - | - | 2,869 |
| Bracebridge | - | - | 2,762 |
| Huntsville | - | - | 3,271 |

The estimates of loads to be attached reflect Northern's present thinking of not attaching any industrial gas customers. However, there is an industrial potential of at least 250,000 Mcf annually replacing coal at an equivalent price of 48 to 56 cents per Mcf and light oil at a price equivalent to gas of 88 to 106 cents per Mcf.

THE CONSUMERS' GAS COMPANY OF TORONTO

The Consumers' Gas Company of Toronto now serves the metropolitan Toronto area and as of January 1, 1956 acquired the assets of the metered gas division of the Ontario Shore Gas Company, Limited, which had distributed gas in the towns of Oshawa, Bowmanville, and Whitby, three communities on the shore of Lake Ontario east of Toronto. In March of 1956, the Consumers' Gas Company of Toronto acquired controlling interest in the Provincial Gas Company, Limited which distributes natural gas in the Niagara Peninsula, principally in the cities of Niagara Falls, Fort Erie, and Welland. The estimates of gas requirements shown in this report for Consumers' include all of the franchise areas described above.

Population data is as follows:

| | <u>1941</u> <u>Census</u> | <u>1951</u> <u>Census</u> | <u>Latest</u> <u>Estimate</u> |
|----------------------|------------------------------|------------------------------|----------------------------------|
| Metropolitan Toronto | 909,928 | 1,117,470 | 1,347,905 |
| Oshawa | 26,813 | 41,545 | 50,136 |
| Bowmanville | 4,113 | 5,430 | 6,101 |
| Whitby | 5,904 | 7,267 | 7,850 |
| Fort Erie | 6,595 | 7,572 | 8,567 |
| Niagara Falls | 20,589 | 22,874 | 24,667 |
| Welland | 12,500 | 15,382 | 16,287 |

Since November 1954, natural gas has been available in Toronto.

Natural gas service was extended to Oshawa, Whitby, and Bowmanville in October, 1956. Natural gas is obtained from gas fields in Texas and Louisiana, transported through the facilities of Tennessee Gas Transmission Company and Niagara Gas Transmission Limited. Upon the arrival of western Canadian gas at Sheridan, Ontario through the trans-continental facilities of Trans-Canada, Trans-Canada

proposes to take over the pipeline facilities between Sheridan and the International-border near Niagara Falls, New York, now operated by Niagara Gas Transmission Limited. These facilities are currently owned by a subsidiary of Trans-Canada, Western Pipe Lines, and are leased to Niagara. At that time Consumers' will discontinue taking natural gas from the United States and will take its supply from Trans-Canada.

After overcoming some inertia in the first few months following the introduction of natural gas, Toronto has in the last year been extremely successful in developing load, particularly in residential heating. The company has been able to put into effect two general rate reductions since the introduction of natural gas and has developed the co-operation and enthusiastic interest of dealers. Public acceptance for the residential use of gas has increased steadily. The company has three different rates and classes of service available for commercial customers which will allow added flexibility in securing loads.

The company has two unique industrial rates, one for firm gas service and one for interruptible gas service. Both of the tariffs have price ranges rather than a fixed rate. This materially assists the development of industrial load at competitive prices and allows Consumers' to serve customers of high load factors at lower prices. Bunker C oil commands a relatively high price in Toronto ranging from 10.9¢ per Imperial gallon to 12.3¢ per Imperial gallon. This is equivalent to natural gas at 60.2¢ to 70.0¢ per Mcf. Consumers' interruptible rate ranges from 50¢ to 65¢ per Mcf.

The areas served in the immediate potential service areas have a

combined population estimated at over 1,920,000 which constitutes over 37-1/2% of the population of the province of Ontario.

The estimates of annual and maximum day requirements for natural gas shown in the Appendix for The Consumers' Gas Company represents the present thinking of the management of Consumers' which anticipates annual purchases from Trans-Canada equal to an 85% load factor of the increased contracted total demands set forth in Consumers' new contract with Trans-Canada dated October 5, 1956. An 85% annual load factor purchase approaches the upper limit normally attainable by a distribution company. However, having a large integrated system serving areas with a large potential market for interruptible industrial natural gas sales, and with adequate peak-shaving facilities, it is probable that Consumers' will achieve and may even exceed their estimated annual load factor of natural gas purchases.

UNION GAS COMPANY OF CANADA, LIMITED

Union Gas Company of Canada, Limited is probably the most experienced and successful natural gas utility which will become a customer of Trans-Canada. It has always pursued an aggressive sales program and has been held back from more rapid development of additional loads only because a shortage in gas supply. Union's own continuing exploration for gas in Ontario, its willingness to contract for natural gas from other local producers, its repeated appearances before the Federal Power Commission seeking additional gas supplies from the United States, and its active support of the Trans-Canada project all testify to Union's desire to develop and serve the growing gas market in southern Ontario.

Union furnishes natural gas service at retail to over 93,000 customers located in a large number of communities in the Chatham-London-Sarnia-Windsor portion of the Ontario peninsula, the area having an estimated population of 314,000 in 1956. In addition to its retail market, Union also sells substantial quantities of gas to United Fuel Investments, Limited, serving the area in and around Hamilton, Ontario, to Dominion Natural Gas Company, Limited, which distributes natural gas in the southern part of the province of Ontario in the area between Kingsville and St. Catharines and indirectly provides partial service to the Central Pipe Line Company, Limited serving six small communities, including Aylmer, Ontario, with gas Central purchases from Dominion.

The markets served by Union, United, Dominion and Central have been in part supplied by local gas purchased or produced in southern Ontario, in part by manufactured gas and in part with gas purchased by Union Gas Company of Canada, Limited from Panhandle Eastern Pipe Line Company through a connection under

the Detroit River near Windsor. Union has developed a substantial underground storage facility in the depleted Dawn Field in Lambton County. The Dawn area is connected to the facilities of Panhandle Eastern by a main transmission line and in turn the area becomes the chief distribution center for gas supplied by Union to its various retail and wholesale customers.

On June 30, 1956, the Federal Power Commission issued an order granting the export by Panhandle Eastern of additional gas to Union pursuant to a contract between the parties, parallel in its terms to the contract between Union and Trans-Canada. A petition for rehearing and request for stay of the order, filed with the Federal Power Commission by the City of Detroit, Wayne County and the Michigan Consolidated Gas Company, was denied by the Commission, August 23, 1956. It is not now known whether further appeals to the courts will be taken but it is assumed herein that the order will become final. This contract provides for an initial 10,500 MMcf per year scaling upwards over a six-year period to an annual volume of 15,500 MMcf of gas. The bulk of these annual volumes is to be delivered during seven summer months and deliveries during the winter may be interrupted and curtailed to zero on any day. In connection with this contract, Union proposes to construct a large diameter line (24" or 26" diameter) from the Dawn storage field area to Hamilton, Ontario and to a connection with Trans-Canada near Sheridan, Ontario. This pipeline, which is presently scheduled for completion in the fall of 1957, will be constructed with lateral lines to serve the communities of St. Marys, Stratford, Kitchener, Waterloo and Guelph, Ontario, along its route. Union will take gas from Panhandle Eastern under the new contract until the Trans-Canada pipeline is completed to Sheridan, Ontario, about November 1, 1958. At that time Union, pursuant to

its contract with Panhandle Eastern, will advise Panhandle Eastern that Trans-Canada gas is now available to Union and that deliveries under Union's contract with Panhandle Eastern shall cease one year after the date of such notice. Trans-Canada's parallel contract with Union will thereupon become effective and commencing about November 1, 1959, it is the present plan of Union to take in excess of its minimum "take-or-pay-for" volumes.

The estimates of the gas requirements for Union shown in the Appendix, reflecting the current thinking of Union's management, contemplate continuing development of residential load, particularly heating. Commercial and firm industrial sales estimates reflect the displacement of high price light fuel oils and the acquisition of loads where gas is a superior fuel.

The volumes of interruptible industrial sales set forth involve the supplying of a part of the annual fuel requirements of the industries listed below:

| <u>Customer</u> | <u>Present Fuel</u> | <u>Annual Requirements Mcf of Natural Gas</u> | <u>Equivalent Price ¢/Mcf</u> |
|----------------------------|-------------------------|---|---------------------------------------|
| <u>Sarnia</u> | | | |
| Fiberglass of Canada, Ltd. | Bunker C Oil | 640,400 | 59.8 |
| Polymer, Ltd. | Butane | 482,400 | 60.0 |
| Cabot Carbon, Ltd. | Bunker B Oil | 352,200 | 63.2 |
| Dow Chemical of Canada | Butane | 165,600 | 61.3 |
| <u>Wallaceburg</u> | | | |
| Dominion Glass of Canada | Bunker C Oil | 509,900 | 52.9 |
| Greenmelk Co. | Bunker B Oil | 98,300 | 61.0 |
| <u>London</u> | | | |
| General Steelwares, Ltd. | Bunker B Oil | 44,800 | 68.1 |
| Proto Tool Co. | Bunker B Oil | 18,600 | 65.2 |
| General Motors Diesel | Bunker B Oil | 13,500 | 61.8 |

| <u>Customer</u> | <u>Present Fuel</u> | <u>Annual Requirements Mcf of Natural Gas</u> | <u>Equivalent Price C/Mcf</u> |
|---|-------------------------|---|---------------------------------------|
| <u>Chatham</u> | | | |
| Ontario Steel Products | Bunker B Oil | 33,200 | 68.7 |
| <u>Windsor</u> | | | |
| Dominion Forge and Stamping | Bunker B Oil | 37,700 | 68.1 |
| <u>Union Area</u> | | | |
| Process boiler load of soap, rubber and textile industries | Bituminous Coal | 2,700,000 | 44.0 |
| <u>Hamilton</u> | | | |
| Dominion Glass of Canada | Bunker C Oil | 945,000 | 57.0 |
| Burlington Steel | Bunker C Oil | 204,000 | 57.0 |
| Building Products, Ltd. | Bunker C Oil | 107,000 | 57.0 |
| National Sewer Pipe | Bunker C Oil | 107,000 | 57.0 |
| Taylor Forge and Pipe Works | Bunker C Oil | 306,000 | 57.0 |
| Hamilton Pressed Brick Co. | Bituminous Coal | 78,000 | 58.0 |
| Canadian Pressed Brick Co. | Bituminous Coal | 59,000 | 58.0 |
| | | <u>6,902,600</u> | |

In addition to the sales described above, an amount of "excess gas" shown in the detailed estimate contemplates service to the Steel Company of Canada's plant at Hamilton. The amount of excess gas market shown does not reflect the possibility of sales to a large cement plant located immediately adjacent to Union's franchise area whose annual fuel requirements are equivalent to 5,000,000 Mcf. Not included in the estimate of Union's annual requirements are possible sales to the Ontario Hydro Electric Power Plant and the Ford Motor Co., Ltd. at Windsor, the Polymer Power Plant at Sarnia, Kellogg, Ltd., at London, or International Harvester Co., Ltd. at Hamilton, loads whose annual fuel requirements are equivalent to 23,570,300 Mcf annually.

The declining local gas production in the southern Ontario fields, the arrangement for the termination of the new Panhandle Eastern contract on or about November 1, 1959, the addition of new communities not now served with natural gas but to be served from the Dawn storage field to Hamilton line, the growing industrial character of many of the principal cities throughout the Ontario peninsula area and the fact of the reduced availability of local natural gas to meet the requirements of the area since a time commencing during World War II, offers a strong possibility that actual requirements of gas from Trans-Canada will be in excess of those estimated above. Because of the area's long experience with natural gas, the territory served by Union both at retail and at wholesale offers excellent possibilities for sound but rapid load development as increased volumes become available to Union.

THE GRIMSBY NATURAL GAS COMPANY, LIMITED

The company presently provides natural gas service to the town of Grimsby and the adjacent townships of South Grimsby, North Grimsby, and Caistor. Grimsby is a distribution center for the adjacent fruit growing area. According to the 1951 Canadian Census the population of Grimsby was 2,773. Latest estimates place the population at 3,300.

The company's supply of natural gas comes from its own production supplemented by purchases from the Dominion Natural Gas Company, Limited and Niagara Gas Transmission, Limited.

The figures included in the market estimates of this report for the Grimsby Natural Gas Company, Limited were taken from the Ford, Bacon and Davis, Inc., report of December 1955.

DOMINION NATURAL GAS COMPANY, LIMITED

The Dominion Natural Gas Company, Limited is an old established utility company providing natural gas service to a number of communities in southern Ontario along Lake Erie. The company's present gas supply is made up of its own production plus supplementary amounts purchased from Union Gas Company of Canada, Limited.

The natural gas to be purchased from the Trans-Canada pipeline is principally for service in St. Catharines, a city of 40,000 population.

Dominion does not have an integrated system nor do they intend to develop any interruptible or substantial industrial gas sales in St. Catharines,

As a result the annual volumes purchased from Trans-Canada are at a low annual load factor and represent gas purchased principally to supply residential heating loads.

The annual and maximum day requirements shown in the detail estimates were supplied by Trans-Canada.

LAKELAND NATURAL GAS LIMITED

Lakeland Natural Gas Limited was formed by Great Northern Gas Utilities Limited, now providing service to certain communities in western Canada, in co-operation with the Toronto investment firm of Gardner, Watson & Company. No gas service is presently being rendered in the 12 towns and six townships for which the company currently holds franchise and Ontario Fuel Board permit authorizations. The company is in process of negotiation to acquire existing municipal distribution systems in the communities of Kingston and Brockville, Ontario and acquire a franchise and permit to serve Cornwall, Ontario. The market information reviewed consisted of a study of requirements of the communities for which Lakeland made application for a certificate of convenience and necessity to the Ontario Fuel Board early in 1956 and for which the company has subsequently received authorization from the Fuel Board.

Although the communities proposed to be served by Lakeland are in general small, they are all located along the northern shore of Lake Ontario or along the St. Lawrence River, within which area there exists substantial attractive industrial loads. From review of the market data available, together with field check of portions of the market, it is believed that the estimates of annual sales are attainable.

LAKE SHORE GROUP

Included in this group are the communities of Kingston, Brockville, and Cornwall, Ontario. The size and relative growth of these communities are indicated from the population figures given below:

| | <u>1941 Census</u> | <u>1951 Census</u> | <u>Latest Estimate</u> |
|------------|--------------------|--------------------|------------------------|
| Brockville | 11,342 | 12,301 | 13,561 |
| Cornwall | 14,117 | 16,899 | 17,005 |
| Kingston | 30,126 | 33,459 | 43,145 |

Kingston and Brockville are presently served by municipal gas systems. Cornwall has been contemplating a municipal gas system. There is a possibility that these communities may be served by the Lakeland Natural Gas Limited. It is our belief that these communities will have a better chance for full development of natural gas markets under private ownership than under municipal operation, due in part to the limitations of municipal financing provided by the laws of the Province of Ontario as to such financing.

The estimates included in this report are those prepared by Ford, Bacon and Davis, Inc., as set forth in their December 7, 1955 market study. We believe that these estimates are on a sound and conservative basis with aggressive private utility operation.

INTERPROVINCIAL UTILITIES LIMITED

Interprovincial Utilities Limited presently distributes manufactured gas to residential and commercial customers in the city of Ottawa, and the adjacent communities of Eastview and Rockcliff Park. At one time there were

over 20,000 gas customers in Ottawa. However, the high cost of manufactured gas service in the city has resulted in a substantial loss of customers over recent years.

Ottawa, the Dominion Capitol, is a city of handsome government buildings and fine residential areas. There is little industry in Ottawa proper.

The following census figures reflect the growth of the service area:

| | <u>1941 Census</u> | <u>1951 Census</u> | <u>Latest Estimate</u> |
|----------------|--------------------|--------------------|------------------------|
| Ottawa | 154,951 | 202,045 | 226,645 |
| Eastview | 7,956 | 13,799 | 18,500 |
| Rockcliff Park | 1,480 | 1,595 | 2,030 |

Interprovincial Utilities Limited, proposes to serve the residential and commercial and customers in the city of Ottawa and the adjacent communities of Eastview and Rockcliff Park and also to extend a line across the Ottawa River to serve the Canada International Paper Company's plant at Gatineau.

The estimated growth in residential load is based principally on an expected development of the home heating market, particularly in the new building field. A large portion of the current new building is occurring adjacent to the proposed route of the natural gas tap line to serve Ottawa. The forecasted commercial load is based on the development and further expansion of the types of markets presently being served plus the displacement of some of the higher priced light fuel oil currently used for heating.

The Canada International Paper Company is currently consuming approximately 270,000 tons of coal per year at an approximate price of \$14.00 per ton

including handling and processing. This is equivalent to natural gas at 49.5 cents per Mcf. This load at Canada International Paper Company should be readily attached at an average annual price of about 44¢ per Mcf which will result by serving approximately half of the requirements on the industrial firm rate and the balance on a seasonal or interruptible basis.

A field survey of the Ottawa area was made and considerable discussion held with company officials. We have thoroughly analyzed the company's forecasts and projections for the development of a natural gas market and we have verified directly the existence of the major industrial fuel requirements. On the basis of this work, we feel that the gas sales estimates for Ottawa, as set forth in this report, are conservative.

QUEBEC NATURAL GAS CORPORATION

Quebec Natural Gas Corporation has an option and proposes to acquire the existing manufactured gas distribution system and facilities of the Quebec Hydro-Electric Commission serving Montreal and environs, and establish a separate operating gas company to convert and extend such system to serve natural gas to the populated areas of Montreal Island, including the communities of Montreal, Dorval, Lachine, LaSalle, Montreal North, Mont Royal, Outremont, St. Laurent, St. Michel, Verdun and Westmount. As of the present time, Quebec Hydro-Electric Commission renders both electric and gas service in the Montreal area. Details of the formal contract covering the acquisition of Quebec Hydro-Electric Commission's existing manufactured gas distribution system and facilities by Quebec Natural Gas Corporation are currently being negotiated. It is expected that actual transfer of the properties involved will take place in the early part of 1957. Quebec Natural Gas Corporation will continue to operate the distribution system to be acquired as a manufactured gas system until natural gas becomes available from Trans-Canada (on or around November 1, 1957 under Trans-Canada Plan II, or on or around November 1, 1958 under Trans-Canada Plan I). Quebec Natural Gas Corporation also proposes at some future date, when the economic feasibility permits, to extend its system across the St. Lawrence River to serve natural gas to the adjacent South Shore area of the mainland, including the principal communities of Jacques Cartier and Longueuil. This South Shore area is developing rapidly, both residentially and industrially, and there is no doubt but that in the near future, it will be profitable for Quebec Natural Gas Corporation to extend its natural gas distribution to serve this area. Additionally, the areas immediately north of Montreal Island, including Jesus Island, are also

developing rapidly residentially. However, in our subject review of Trans-Canada's markets, the natural gas requirements of Quebec Natural Gas Corporation on Montreal Island only have been included in our estimates of Trans-Canada's sales set forth herein. Details of such estimated requirements (on Montreal Island only) are set forth in the Appendix to this report. The franchise granted Quebec Natural Gas Corporation by the Province of Quebec presently establishes its franchise area as Montreal Island and outwardly for a radius of 15 miles on the South Shore. It is not expected that the Corporation will have any trouble getting its provincial franchise amended to include in its franchise area other areas located within a radius of 15 miles of Montreal Island in other directions, when and if it so desires.

Population data for Montreal Island (total) and for the principal communities on that island and in the South Shore area of the mainland are set forth below:

| | <u>1941 Census</u> | <u>1951 Census</u> | <u>Latest Estimate</u> |
|-------------------------------|--------------------|--------------------|------------------------|
| Montreal Island (Total) | 1,116,800 | 1,320,232 | 1,565,000 |
| Montreal | 903,007 | 1,021,520 | 1,080,000 |
| Dorval | - | 5,293 | 7,000 |
| Lachine | 20,051 | 27,773 | 32,045 |
| LaSalle | 4,651 | 11,633 | 14,564 |
| Montreal North | 6,152 | 14,081 | 18,515 |
| Mont Royal | 4,888 | 11,352 | 14,163 |
| Outremont | 30,751 | 30,057 | 31,361 |
| St. Laurent | 6,242 | 20,426 | 29,689 |
| St. Michel | 2,956 | 10,539 | 13,100 |
| Verdun | 67,349 | 77,391 | 80,390 |
| Westmount | 26,047 | 25,222 | 25,000 |
| Longueuil (South Shore) | 7,087 | 11,103 | 12,080 |
| Jacques Cartier (South Shore) | 1,972 | 22,450 | 26,773 |

Commonwealth Services Inc. has made an extensive study of the Montreal Island market area which is the basis for the estimates of the natural gas requirements of such market area set forth in detail in the Appendix to this report.

The Quebec Hydro-Electric Commission has done very little in promoting gas sales or in extending its gas distribution system in the Montreal area in recent years. As a result, its present gas sales per customer are extremely low and its existing gas distribution system does not presently serve substantial residential areas which have been developed in recent years or which are being extensively developed at the present time. Quebec Natural Gas Corporation proposes to gradually extend its distribution system to serve these presently unserved residential areas and to institute and engage in an aggressive sales promotion program to attach new customers and increase the acceptance and usage of natural gas by both existing and new customers. The Corporation also proposes to conduct an aggressive campaign to attach and serve a substantial portion of the large existing industrial fuel market in the Montreal area, which is not now served with gas.

Montreal has been and still is a city of apartments, a great number of which are "cold-water flats" which do not have central heating facilities. However, as shown in the following tabulation, the present trend in residential building on Montreal Island is preponderately toward single homes (or duplexes) with central heating facilities:

| | Total Existing As Of <u>1951 Census</u> | New Building <u>1951-1955 Inc.</u> | Total Existing As Of <u>End of 1955</u> |
|-------------------------------|---|---------------------------------------|---|
| Single Homes (Incl. Duplexes) | | | |
| Central Heating | 33,319 | 52,491 | 85,810 |
| Non-Central Heating | 11,106 | 5,831 | 16,937 |
| Subtotal | <u>44,425</u> | <u>58,322</u> | <u>102,747</u> |
| Apartments | | | |
| Central Heating | 110,701 | 9,722 | 120,423 |
| Non-Central Heating | 162,534 | 9,719 | 172,253 |
| Subtotal | <u>273,235</u> | <u>19,441</u> | <u>292,676</u> |
| Total | 317,660 | 77,763 | 395,423 |

The total new residential units built on Montreal Island in each of the years 1951-1955 were as follows:

| | | | |
|------|---|--------|-----------------|
| 1951 | - | 16,316 | (5.1% Increase) |
| 1952 | - | 10,500 | (3.1% Increase) |
| 1953 | - | 16,833 | (4.9% Increase) |
| 1954 | - | 16,833 | (4.9% Increase) |
| 1955 | - | 18,923 | (5.0% Increase) |

The average annual increase (over previous year) in the total number of residential units during the 5-year period was 4.5%. Data on new residential units built in 1956 to date indicates that the per cent increase in total number of residential units in that year will be of the same order. Accordingly, in our estimates of the natural gas requirements of Montreal Island, we have assumed that this annual rate of increase in total number of new residential units will continue, at least for the period covered by our estimates. We have also assumed that the present trend towards centrally heated single homes (or duplexes) will also be continued.

In the field of residential heating, it is our opinion that the only real limitation on Quebec Natural Gas Corporation's ability to attach the heating load (and to a somewhat lesser extent, the automatic water-heating load) in new single homes (or duplexes) built will be the availability of gas mains to serve such homes. This is because of the fact that not only will there be some savings in fuel costs under the natural gas rates proposed by Quebec Natural over #2 oil (for heating) and electricity (for water heating), but also the initial cost of gas heating and water-heating equipment is substantially less (approximately \$300) than oil-heating and electric water-heating equipment. Accordingly, we have estimated that 35% of the new single homes and duplexes built during the first year of natural gas service will use that fuel for heating, increasing to

85% by the sixth year, reflecting our assumed extension of the existing gas distribution system to areas not now served where most of the new single homes (or duplexes) are being built. Of these new single homes (or duplexes) attached, we have estimated that 80% will also use natural gas for automatic water-heating. In this connection, it is noted that gas-heating equipment is presently being installed in approximately 95% of the new residences built in the United States in areas where natural gas for heating is available at rates competitive with fuel oil. We also estimate that Quebec Natural Gas Corporation will also have considerable success in selling natural gas for heating (in replacement of other fuels) in the older single homes (and duplexes) on Montreal Island, because of savings in fuel costs and because of its cleanliness and automatic features. We have not, however, forecast much development of natural gas heating loads in the single homes (and duplexes) on Montreal Island which have been built during recent years until presently installed heating equipment reaches replacement age. As to the non-centrally heated apartments, or "cold-water flats", it is our opinion that such apartments present an extremely attractive market for the sale of gas for heating, although the space-heating load in such an apartment is approximately only one-third of the space-heating load in a single home. The tenants of these apartments for the most part presently use high priced #1 stove oil which must be stored outdoors, hauled in small containers, is dirty and smoky, and gives poor service in general. Quebec Natural Gas Corporation proposes a rate for natural gas which will be somewhat less than the cost of #1 stove oil. Additionally, the cost of the unit gas space heaters which would be used in such apartments is considerably less than gas central heating equipment, and is portable and may be easily moved from place to place. Gas utilities in New England serving similar

markets of "cold-water flats" have had excellent success in developing natural gas heating loads in such markets, in some cases at natural gas rates higher than the cost of oil.

As to the automatic water-heating field, we have forecast a somewhat more conservative development of this load than for space heating, because of the fact that the cost of natural gas for water heating under the rates proposed by Quebec Natural Gas Corporation will not be competitive with the extremely low electric water-heating rate of the Quebec Hydro-Electric Commission. However, in this connection, it is noted that Quebec Hydro is not presently promoting the sale of electricity for water heaters, and apparently has no intention of promoting such usage in the future, as evidenced by the fact that during the last year it put into effect a demand charge which has the effect in many instances of substantially increasing the cost of electric water heating, and has recently discontinued its appliance display store. In comparison, Quebec Natural Gas Corporation proposes an aggressive automatic water-heating campaign. Additionally, the initial cost of a typical gas automatic water-heater installed in residences is substantially less than that of a typical electric automatic water heater installed in residences. Accordingly, we are of the opinion that Quebec Natural will have considerable success in the development of a natural gas automatic water-heating load for both existing and new customers. Particularly is this true with respect to "cold-water flats", a large number of which do not have either a gas or electric water heater at the present time.

As to the cooking field, we have estimated only a nominal increase in the total number of gas cooking customers. This is in spite of the fact that gas is by far the predominant fuel used for cooking on Montreal Island at the

present time. However, in recent years, the trend has definitely been from gas to electricity for cooking, particularly in new homes.

In estimating the natural gas commercial loads shown for Montreal Island in the Appendix to this report, we have assumed that Quebec Natural Gas Corporation will be able to continue to attach the loads normally to be expected from newly constructed commercial establishments, as Quebec Hydro-Electric has in the past. Additionally, we have assumed that under its proposed natural gas rates it will be able to develop a substantial heating and automatic water-heating load, both in commercial establishments now being served and in new commercial establishments to be built and attached. Also, we have assumed that the Corporation should be able to develop a nominal amount of heating and automatic water-heating load in existing centrally heated apartment buildings, and in new centrally heated apartment buildings to be built.

The estimates of the firm industrial natural gas sales shown for Montreal Island in the Appendix to this report are based on a field survey and contemplate the displacement of only the light fuel oil and high cost coal with which natural gas will be competitive under the natural gas rates proposed by Quebec Natural Gas Corporation.

Our estimates of the interruptible natural gas sales shown for Montreal Island in the Appendix to this report are based on the assumed attachment and serving portions of the following estimated total existing potential market for such sales (increasing at rate of approximately 5% per year), as determined by a recent field survey:

| <u>Company</u> | <u>Present Fuel</u> | <u>Annual Requirements Mcf of Natural Gas</u> | <u>Equivalent Natural Gas Price ¢ Per Mcf</u> |
|---------------------------------------|-------------------------|---|---|
| Canada Cement Company, Ltd. | Slack Coal | 7,040,000 | 47.0 |
| Dominion Glass Company Ltd. | Bunker C Oil | 633,500 | 60.0 |
| Pittsburg Canada Glass, Ltd. | Bunker C Oil | 724,000 | 56.0 |
| Consumers Glass Company, Ltd. | Bunker C Oil | 905,000 | 53.0 |
| Molson Brewery, Ltd. | Bunker C Oil | 452,500 | 55.0 |
| Barrett Company, Ltd. | Bunker C Oil | 976,495 | 52.0 |
| St. Lawrence Sugar Company, Ltd. | Bunker C Oil | 950,250 | 52.0 |
| Montreal Locomotive Works | Bunker C Oil | 452,500 | 55.0 |
| Steel Company of Canada, Ltd. | Slack Coal | 434,750 | 49.0 |
| | Bunker C Oil | 206,340 | 55.0 |
| Canada Dominion Sugar, Ltd. | Slack Coal | 2,033,200 | 48.0 |
| Canada Copper Refining Ltd. | Bunker C Oil | 859,750 | 52.0 |
| B. A. Shawinigan, Ltd. | Bunker C Oil | 724,000 | 52.0 |
| Montsano Chemical, Ltd. | Bunker C Oil | 543,000 | 55.0 |
| Distillers Corporation of Canada Ltd. | Bunker C Oil | 877,850 | 54.0 |
| Canadian Tube & Steel Ltd., | Coal | 158,976 | 52.0 |
| | Bunker C Oil | 488,700 | 56.0 |
| Canadair, Ltd. | Coal | 292,500 | 52.0 |
| Dominion Oilcloth, Ltd. | Bunker C Oil | 316,750 | 55.0 |
| Canadian Converters, Ltd. | Bunker C Oil | 271,500 | 64.0 |
| Atlas Asbestos Company, Ltd. | Bunker C Oil | 294,125 | 61.0 |
| Carr Company | Bunker C Oil | 275,120 | 61.0 |
| Northern Electric Company | Slack Coal | 315,900 | 50.0 |
| Canada Packers, Ltd. | Bunker C Oil | 343,900 | 55.0 |
| Gypsum Lime Company, Ltd. | Bunker C Oil | 292,315 | 55.0 |
| Building Products, Ltd. | Bunker C Oil | 298,650 | 55.0 |
| Standard Brands, Ltd. | Bunker C Oil | 235,300 | 55.0 |
| Canada Car & Foundry, Ltd. | Bunker C Oil | 2,206,102 | 49.0 |
| | Coal | 758,883 | 55.0 |
| Total | | 24,361,856 | |

Note: Equivalent natural gas volumes and prices shown were computed on basis of following assumed combustion efficiencies: Natural Gas - 80%; Bunker C Oil - 80%; Stoker Coal - 80%; Powdered Coal - 83%. Equivalent natural gas price shown for coal includes a \$1.00 per ton added allowance for handling.

With respect to the above potential interruptible natural gas industrial market, Quebec Natural Gas Corporation undoubtedly will establish the price for its interruptible natural gas industrial sales on a negotiated basis. For the

purpose of our studies of the Montreal market, we have assumed that the average revenue per Mcf which it will receive for such sales will be 45¢. We are of the opinion that the estimated interruptible natural gas industrial sales shown for Montreal Island in the Appendix to this report can be attached by Quebec Natural Gas Corporation at such an average rate. In this connection, it is noted that all of the industrial interruptible gas sales contemplated involve service to plants which are within economically feasible distances of existing or proposed high-pressure transmission laterals or intermediate pressure distribution feeder mains. Additionally, it is noted that this gas will be purchased from Trans-Canada by Quebec Natural Gas Corporation at an average price less than 36¢ per Mcf.

HISTORICAL MARKET DATA

Supplementary to the detailed market estimate information set forth in Section II of the Appendix, historical market data for the following major utility companies presently distributing gas is set forth in Section III of the Appendix:

Winnipeg & Central Gas Company
The Consumers' Gas Company of Toronto
Provincial Gas Company Limited (Subsidiary of
The Consumers' Gas Company of Toronto)
Union Gas Company of Canada, Limited
Interprovincial Utilities Limited
Quebec Natural Gas Corporation

Covering the last three full years of operation for which information is available, the data shown includes customers by major classification, annual sales by classification and total maximum day send-outs.

CLIMATOLOGICAL DATA

Climatological data, showing annual degree day deficiencies and normal degree day deficiency on the maximum day, is summarized for most of the communities proposed to be served in Section IV of the Appendix.

COMPETITIVE FUEL DATA

In Section V of the Appendix is included a comparison of domestic and commercial competitive fuel costs in representative cities of the market area, together with a comparison of competitive fuel costs for prospective small firm industrial customers for those market areas where the information regarding such prospective customers was not set forth in detail in the text.

The low electric rates available for domestic cooking will make acquisition of this load by the gas distribution companies very difficult. Our estimates of markets have reflected this condition.

Better success in attachment of domestic water-heating load, as contemplated in our estimates, is confirmed by the more attractive competitive position enjoyed by natural gas for this service, particularly when it is sold in combination with home heating.

Lower per customer fuel use as shown in the competitive fuel data for Montreal reflects the high percentage of families living in apartments, where fuel use per family unit is relatively low.

The principal competition which natural gas will encounter in the home-heating field is from oil. Coal-fired central heating equipment is confined to

older homes, and is being rapidly replaced by automatic heat. Price wise, natural gas is in its most favorable competitive position when serving this market. Under domestic retail rates as proposed, natural gas should capture a large portion of the market potential, particularly in the new-building field where installation of gas equipment results in a considerable saving to the builder.

Gas has always been successful in attaching a large percentage of commercial load, particularly cooking and large-volume water heating. With the advent of natural gas, and the resulting lower rates, it can be expected that the gas utilities will experience considerable success in further developing those loads where gas has superior fuel characteristics, and in addition in attaching large volumes of commercial heating.

The competitive situation of gas in serving the industrial markets has been discussed in connection with the comments on individual distribution companies and the markets each will serve. The rapid expansion of the Canadian economy and the rapidly growing world-wide demand for all fuels makes improbable the possibility of any future sharp reductions in coal and oil prices. The long-term prospects of natural gas for attaching and retaining loads even beyond those now contemplated appear very strong.

CONCLUSIONS

On the basis of the most current information available, we have reviewed and summarized herein the estimated natural gas sales requirements (exclusive of volumes of manufactured gas proposed to be used in certain instances for peak-shaving purposes and natural gas produced or purchased from other

sources by partial requirements customers) of the distribution company customers proposed to be served by Trans-Canada Pipe Lines Limited. The summary set forth in Section I of this study compares the market estimates of the subject study with the market estimate details upon which the October, 1956 supplement to our September, 1956 "Report on Economic Feasibility of Proposed Natural Gas Pipeline Project" of Trans-Canada Pipe Lines Limited was based.

The current review has resulted in variations in the estimates for individual companies or for the various Trans-Canada rate zones--some upward and some downward--but the general effect of the study is to more than support the estimates set forth in the supplemental report. In the early years, the volumes now estimated for Plan I are somewhat less than those shown in the supplement, while for Plan II a modest increase in the annual sales requirements is indicated. In the later years, the annual sales requirements show improvement under either Plan I or Plan II. Commencing with the first year of full operation of the pipeline, 1958/59, firm gas contract demands are estimated by the current study to be increased under either Plan, indicating the improvement which has been realized in the firm character of the sales estimated to be made from the pipeline, which will result in improved average revenues per Mcf sold.

It will be noted that the gas sales requirements estimated in the subject report are in excess of the estimated annual sales capacity of the line as presently proposed, commencing in 1958 under Plan II and 1960 under Plan I, as presently estimated. In the summary comparison, the estimated sales requirements in excess of such capacity are shown as curtailed. In actual practice, such curtailment may not take place. The volumes shown as curtailed should

either be considered as a cushion or "plus factor" to assure the operation of the pipeline project as presently proposed at full capacity, or, in the alternative, it may well be that the pipeline company would be justified in accelerating its proposed program for the installation of compressor capacity to serve the added load.

In the estimates of gas sales requirements, there have been included only those loads which in our opinion can reasonably be expected to be attached under prevailing market conditions and at the retail rates proposed by the various distribution companies to be served by Trans-Canada. The assumed rates of attachment and development of loads, and assumed consumption factors, on which the sales estimates for the various markets are based are generally conservative. We conclude that more than enough market for natural gas exists along Trans-Canada's proposed pipeline route, or will exist by the time the project is completed to permit its operation on an annual basis at 95% or higher capacity factor.

A P P E N D I X

SUMMARY COMPARISON OF ESTIMATED TOTAL GAS SALES REQUIREMENTS, CURTAILMENTS,
AND GAS SALES OF TRANS-CANADA PIPE LINES LIMITED USED IN OCTOBER, 1956
SUPPLEMENTAL REPORT AND SHOWN IN SUBJECT MARKET STUDY REPORT

Section I
A-1

PLANS I & II

| | Per October, 1956 Supplemental Report | | | | | | As Revised Per Subject Market Study Report | | | | | |
|--|---------------------------------------|-------------|-------------|-------------|-------------|-------------|--|-------------|-------------|-------------|--------------|-------------|
| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
| <u>SUMMARY TOTAL GAS SALES REQUIREMENTS, SALES CURTAILMENTS AND TOTAL ANNUAL SALES</u> | | | | | | | | | | | | |
| <u>PLAN I</u> | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm | 27,720 | 172,731 | 220,356 | 269,489 | 327,240 | 370,451 | 26,555 | 162,978 | 218,901 | 268,820 | 325,150 | 371,422 |
| Industrial Firm (Large) | 14,400 | 38,248 | 42,643 | 57,603 | 59,753 | 61,703 | 14,400 | 47,438 | 50,782 | 75,461 | 77,533 | 79,405 |
| Total Firm Gas Contract Demands | 42,120 | 210,979 | 262,999 | 327,092 | 386,993 | 432,154 | 40,955 | 210,416 | 269,683 | 344,281 | 402,683 | 450,827 |
| Annual Sales Requirements | | | | | | | | | | | | |
| Total Firm Gas | 14,527,980 | 71,651,600 | 103,833,158 | 128,531,150 | 154,492,360 | 173,876,140 | 14,509,370 | 72,747,376 | 106,136,859 | 133,293,412 | 158,510,910 | 178,909,872 |
| Total Seasonal Off-Peak Gas | 1,455,800 | 8,760,900 | 10,977,300 | 8,649,200 | 7,413,200 | 6,379,600 | 1,455,800 | 4,675,900 | 4,653,400 | 3,972,600 | 10,127,514 | 8,903,324 |
| Total Interruptible (Excess) Gas | 351,900 | 14,975,000 | 16,248,000 | 16,122,000 | 13,042,000 | 9,588,000 | 351,900 | 13,128,138 | 17,022,199 | 17,500,709 | 9,502,200 | 5,090,000 |
| Total Annual Sales Requirements | 16,335,680 | 95,387,500 | 131,058,458 | 153,302,350 | 174,947,560 | 189,843,740 | 16,317,070 | 90,551,414 | 127,812,458 | 154,766,721 | 178,140,624 | 192,903,196 |
| Less Curtailments | | | | | | | | | | | | |
| Seasonal Off-Peak | - | - | - | - | - | - | - | - | - | - | (1,691,864) | (1,157,196) |
| Interruptible (Excess) | - | - | (3,246,000) | (1,216,800) | (4,901,000) | (3,187,740) | - | - | - | (2,681,171) | (6,402,200) | (5,090,000) |
| Total Curtailment | - | - | (3,246,000) | (1,216,800) | (4,901,000) | (3,187,740) | - | - | - | (2,681,171) | (8,094,064) | (6,247,196) |
| Total Annual Sales | 16,335,680 | 95,387,500 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 | 16,317,070 | 90,551,414 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 |
| <u>PLAN II</u> | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm | 56,220 | 182,231 | 233,356 | 285,989 | 337,740 | 379,451 | 49,162 | 178,024 | 236,182 | 284,398 | 338,728 | 380,000 |
| Industrial Firm (Large) | 24,400 | 38,248 | 43,643 | 58,103 | 60,253 | 63,303 | 21,743 | 48,392 | 59,501 | 75,883 | 77,955 | 79,827 |
| Total Firm Gas Contract Demands | 80,620 | 220,479 | 276,999 | 344,092 | 397,993 | 442,754 | 70,905 | 226,416 | 295,683 | 360,281 | 416,683 | 459,827 |
| Annual Sales Requirements | | | | | | | | | | | | |
| Total Firm Gas | 27,927,980 | 75,041,600 | 108,868,158 | 134,911,150 | 157,797,360 | 177,580,140 | 25,936,652 | 78,873,063 | 114,574,672 | 138,725,598 | 163,134,474 | 182,839,590 |
| Total Seasonal Off-Peak Gas | 1,455,800 | 8,760,900 | 10,977,300 | 8,649,200 | 7,413,200 | 6,379,600 | 1,455,800 | 4,675,900 | 4,653,400 | 10,495,514 | 9,170,124 | 7,959,998 |
| Total Interruptible (Excess) Gas | 351,900 | 14,975,000 | 16,248,000 | 16,122,000 | 13,042,000 | 9,588,000 | 3,732,865 | 18,232,005 | 16,597,878 | 9,439,598 | 9,502,200 | 5,090,000 |
| Total Annual Sales Requirements | 29,735,680 | 98,777,500 | 136,093,458 | 159,682,350 | 178,252,560 | 193,547,740 | 31,025,317 | 101,781,568 | 135,825,950 | 158,660,710 | 181,806,798 | 195,889,588 |
| Less Curtailments | | | | | | | | | | | | |
| Seasonal Off-Peak | - | - | - | - | - | - | - | - | - | - | (5,358,038) | (4,143,588) |
| Interruptible (Excess) | - | - | (8,281,000) | (7,596,800) | (8,206,000) | (6,891,740) | - | (581,568) | (8,013,492) | (6,575,160) | (6,402,200) | (5,090,000) |
| Total Curtailments | - | - | (8,281,000) | (7,596,800) | (8,206,000) | (6,891,740) | - | (581,568) | (8,013,492) | (6,575,160) | (11,760,238) | (9,233,588) |
| Total Annual Sales | 29,735,680 | 98,777,500 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 | 31,025,317 | 101,200,000 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 |
| Pipeline Total Annual Sales Capacity | - | 101,200,000 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 | - | 101,200,000 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 |

- 1/ Curtailment of Interruptible (Excess) Gas.
2/ Limited by Sales Capacity of line as proposed.

SUMMARY COMPARISON BY RATE ZONES OF ESTIMATED GAS SALES REQUIREMENTS
OF TRANS-CANADA PIPE LINES LIMITED USED IN OCTOBER, 1956 SUPPLEMENTAL
REPORT AND THOSE SHOWN IN SUBJECT MARKET STUDY REPORT

PLAN I

| | Per October, 1956 Supplemental Report | | | | | | As Revised Per Subject Market Study Report | | | | | |
|---|---------------------------------------|------------|------------|------------|------------|------------|--|------------|------------|------------|------------|------------|
| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
| <u>SASKATCHEWAN RATE ZONE</u> | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm (90% I.F. Min.) | 9,500 | 11,500 | 13,500 | 15,000 | 17,000 | 19,000 | 9,500 | 11,500 | 13,500 | 15,000 | 17,000 | 19,000 |
| Annual Sales Requirements | | | | | | | | | | | | |
| General Service Firm | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| Total Annual Sales Requirements | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| <u>MANITOBA RATE ZONE</u> | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm (50% L.F. Min) | 9,120 | 21,486 | 28,385 | 34,626 | 42,013 | 49,920 | 7,955 | 19,236 | 28,385 | 34,626 | 42,071 | 49,920 |
| Industrial Firm (Large) | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 |
| Annual Sales Requirements | | | | | | | | | | | | |
| General Service & Industrial Firm (Large) | 3,508,000 | 5,867,000 | 7,054,858 | 8,360,150 | 9,765,860 | 10,871,240 | 3,489,400 | 5,849,103 | 7,036,858 | 8,359,733 | 9,766,014 | 10,870,724 |
| Small General Service Firm | 1,502,880 | 995,500 | 1,064,600 | 1,136,200 | 1,218,600 | 1,294,000 | 1,502,870 | 995,525 | 1,064,650 | 1,136,197 | 1,218,602 | 1,294,009 |
| Manitoba Power Co. - Firm | - | 1,000,000 | 1,240,000 | - | - | - | - | 1,000,000 | 1,240,000 | - | - | - |
| - Interruptible | - | - | - | 2,100,000 | 3,100,000 | - | - | - | - | 2,100,000 | 3,100,000 | - |
| Seasonal Off-Peak - 9 Months Firm | 1,455,800 | 1,460,900 | 1,466,000 | 1,466,000 | 1,466,000 | 1,466,000 | 1,455,800 | 1,460,900 | 1,466,000 | 1,466,000 | 1,466,000 | 1,466,000 |
| Interruptible (Excess) - Other | 351,900 | - | - | - | - | - | 351,900 | - | - | - | - | - |
| Total Annual Sales Requirements | 6,818,580 | 9,323,400 | 10,825,458 | 13,062,350 | 15,550,460 | 13,631,240 | 6,799,970 | 9,305,525 | 10,807,508 | 13,061,930 | 15,550,616 | 13,630,733 |
| <u>WESTERN ONTARIO RATE ZONE</u> | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm (75% L.F. Min) | 9,100 | 11,700 | 14,000 | 16,800 | 20,700 | 20,700 | 9,100 | 11,700 | 14,000 | 16,800 | 20,700 | 20,700 |
| Industrial Firm (Large) | 8,900 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | 8,900 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 |
| Annual Sales Requirements | | | | | | | | | | | | |
| General Service & Industrial Firm (Large) | 6,223,000 | 7,042,000 | 7,756,300 | 8,625,000 | 9,835,000 | 9,835,000 | 6,223,000 | 7,042,700 | 7,756,300 | 8,625,000 | 9,835,000 | 9,835,000 |
| Total Annual Sales Requirements | 6,223,000 | 7,042,000 | 7,756,300 | 8,625,000 | 9,835,000 | 9,835,000 | 6,223,000 | 7,042,700 | 7,756,300 | 8,625,000 | 9,835,000 | 9,835,000 |
| <u>NORTHERN ONTARIO RATE ZONE</u> | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm (75% L.F. Min) | - | 23,600 | 28,050 | 39,000 | 44,000 | 49,200 | - | 23,600 | 30,050 | 39,010 | 44,400 | 49,200 |
| Industrial Firm (Large) | - | 4,000 | 7,000 | 20,000 | 20,000 | 20,000 | - | 4,000 | 5,000 | 20,000 | 20,000 | 20,000 |
| Annual Sales Requirements | | | | | | | | | | | | |
| General Service & Industrial Firm (Large) | - | 8,562,900 | 10,874,300 | 18,304,700 | 19,980,100 | 21,469,300 | - | 8,654,291 | 10,782,070 | 17,839,936 | 20,366,613 | 21,216,800 |
| Seasonal Off-Peak - 6 Months Firm | - | 2,300,000 | 4,511,300 | 3,183,200 | 2,447,200 | 1,913,600 | - | 2,300,000 | 2,272,400 | 1,591,600 | 1,223,600 | 956,800 |
| Total Annual Sales Requirements | - | 10,862,900 | 15,385,600 | 21,487,900 | 22,427,300 | 23,382,900 | - | 10,954,291 | 13,054,470 | 19,431,536 | 21,590,213 | 22,173,600 |

| | Per October, 1956 Supplemental Report | | | | | | As Revised Per Subject Market Study Report | | | | | |
|---|---------------------------------------|------------|-------------|-------------|-------------|-------------|--|------------|-------------|-------------|-------------|-------------|
| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
| CENTRAL RATE ZONE | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm (75% L.F. Min.) | - | 64,350 | 76,860 | 85,500 | 100,350 | 113,400 | - | 64,350 | 76,860 | 85,500 | 100,350 | 113,400 |
| Industrial Firm (Large) | - | 7,150 | 8,540 | 9,500 | 11,150 | 12,600 | - | 7,150 | 8,540 | 9,500 | 11,150 | 12,600 |
| Annual Sales Requirements | | | | | | | | | | | | |
| General Service & Ind. Firm (Large) | - | 21,580,600 | 25,696,000 | 28,378,800 | 33,032,500 | 36,956,300 | - | 21,580,600 | 25,696,000 | 28,378,800 | 33,032,000 | 36,956,300 |
| Additional Firm (Consumers' Gas Co.) | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,402,500 | 14,235,000 | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,403,000 | 14,235,000 |
| Small General Service Firm | - | 991,000 | 1,534,000 | 1,989,000 | 2,361,000 | 2,657,000 | - | 791,605 | 1,209,815 | 1,449,451 | 1,756,240 | 1,967,793 |
| Union Gas Co. - Annual Firm | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| - Interruptible (Excess) | - | 5,000,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | - | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| Total Annual Sales Requirements | - | 31,586,600 | 54,059,000 | 62,567,800 | 74,096,000 | 85,148,300 | - | 31,387,205 | 51,234,815 | 59,528,251 | 70,991,240 | 81,959,093 |
| EASTERN RATE ZONE | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm (90% L.F. Min.) 1/ | - | - | - | - | - | - | - | 22,657 | 37,703 | 54,984 | 70,562 | 84,140 |
| General Service Firm (75% L.F. Min.) | - | 40,095 | 59,561 | 78,563 | 103,177 | 118,231 | - | 9,935 | 18,403 | 22,900 | 30,067 | 35,062 |
| Industrial Firm (Large) - 90% L.F. Min. | - | - | - | - | - | - | - | 7,343 | 8,297 | 17,016 | 17,438 | 17,860 |
| - 75% L.F. Min. | - | 10,598 | 10,603 | 11,603 | 12,103 | 12,603 | - | 12,445 | 12,445 | 12,445 | 12,445 | 12,445 |
| Annual Sales Requirements | | | | | | | | | | | | |
| General Service & Ind. Firm (90% L.F.) 1/ | - | - | - | - | - | - | - | 11,327,282 | 17,452,969 | 25,890,782 | 31,322,968 | 35,946,532 |
| General Service & Ind. Firm (75% L.F.) | - | 17,610,000 | 24,603,000 | 31,836,000 | 41,202,000 | 46,170,000 | - | 7,503,670 | 9,888,097 | 11,712,213 | 14,115,673 | 16,199,414 |
| Seasonal Off-Peak - 7 Mos. (Av.) Firm | - | 5,000,000 | 5,000,000 | 4,000,000 | 3,500,000 | 3,000,000 | - | 915,000 | 915,000 | 915,000 | 915,000 | 915,000 |
| - 6 Mos. Firm 1/ | - | - | - | - | - | - | - | - | - | - | 6,522,914 | 5,565,524 |
| Interruptible (Excess) | - | 9,975,000 | 8,748,000 | 6,522,000 | 2,442,000 | 2,088,000 | - | 8,128,138 | 12,022,199 | 10,400,709 | 1,402,200 | 90,000 |
| Total Annual Sales Requirements | - | 32,585,000 | 38,351,000 | 42,358,000 | 47,144,000 | 51,258,000 | - | 27,874,090 | 40,278,265 | 48,918,704 | 54,278,755 | 58,716,470 |
| SUMMARY ALL RATE ZONES | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm | 27,720 | 172,731 | 220,356 | 269,489 | 327,240 | 370,451 | 26,555 | 162,978 | 218,901 | 268,820 | 325,150 | 371,422 |
| Industrial Firm (Large) | 14,400 | 38,248 | 42,643 | 57,603 | 59,753 | 61,703 | 14,400 | 47,438 | 50,782 | 75,461 | 77,533 | 79,403 |
| Total Firm Gas Contract Demands | 42,120 | 210,979 | 262,999 | 327,092 | 386,993 | 432,154 | 40,955 | 210,416 | 269,683 | 344,281 | 402,683 | 450,827 |
| Annual Sales Requirements | | | | | | | | | | | | |
| General Service & Ind. Firm (Large) | 13,025,100 | 64,650,100 | 80,665,558 | 100,705,950 | 119,710,260 | 131,890,140 | 13,006,500 | 65,945,246 | 83,293,394 | 106,007,764 | 124,333,068 | 137,613,070 |
| Additional Firm (Consumers' Gas Co.) | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,402,500 | 14,235,000 | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,403,000 | 14,235,000 |
| Small General Service Firm | 1,502,880 | 1,986,500 | 2,598,600 | 3,125,200 | 3,579,600 | 3,951,000 | 1,502,870 | 1,787,130 | 2,274,465 | 2,585,648 | 2,974,842 | 3,261,802 |
| Manitoba Power Co. Firm | - | 1,000,000 | 1,240,000 | - | - | - | - | 1,000,000 | 1,240,000 | - | - | - |
| Union Gas Co. Annual Firm | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| Total Firm Gas Requirements | 14,527,980 | 71,651,600 | 103,833,158 | 128,531,150 | 154,592,360 | 173,876,140 | 14,509,370 | 72,747,376 | 106,136,859 | 133,293,412 | 158,510,910 | 178,909,872 |
| Interruptible (Excess) | | | | | | | | | | | | |
| Manitoba Power Co. | - | - | - | 2,100,000 | 3,100,000 | - | - | - | - | 2,100,000 | 3,100,000 | - |
| Union Gas Co. | - | 5,000,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | - | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| All Others | 351,900 | 9,975,000 | 8,748,000 | 6,522,000 | 2,442,000 | 2,088,000 | 351,900 | 8,128,138 | 12,022,199 | 10,400,709 | 1,402,200 | 90,000 |
| Total Interruptible (Excess) | 351,900 | 14,975,000 | 16,248,000 | 16,122,000 | 13,042,000 | 9,588,000 | 351,900 | 13,128,138 | 17,022,199 | 17,500,709 | 9,502,200 | 5,090,000 |
| Seasonal Off-Peak (6-9 Mos. Firm) | 1,455,800 | 8,760,900 | 10,977,300 | 8,649,200 | 7,413,200 | 6,379,600 | 1,455,800 | 4,675,900 | 4,653,400 | 3,972,600 | 10,127,514 | 8,903,324 |
| Total Annual Sales Requirements | 16,335,680 | 95,387,500 | 131,058,458 | 153,302,350 | 174,947,560 | 189,843,740 | 16,317,070 | 90,551,414 | 127,812,458 | 154,766,721 | 178,140,624 | 192,903,196 |

1/ - Quebec Natural Gas Corporation.

SUMMARY COMPARISON BY RATE ZONES OF ESTIMATED GAS SALES REQUIREMENTS
OF TRANS-CANADA PIPE LINES LIMITED USED IN OCTOBER, 1956 SUPPLEMENTAL
REPORT AND THOSE SHOWN IN SUBJECT MARKET STUDY REPORT

PLAN II (SEE FOOTNOTE 1/)

| | Per October, 1956 Supplemental Report | | | | | | As Revised Per Subject Market Study Report | | | | | |
|--|---------------------------------------|------------|------------|-------------|-------------|-------------|--|------------|------------|-------------|-------------|-------------|
| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
| SUMMARY TOTAL GAS SALES REQUIREMENTS ALL ZONES EXCEPT EASTERN ONTARIO ZONE PER PLAN I | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm | 27,720 | 132,636 | 160,795 | 190,926 | 224,063 | 252,220 | 26,505 | 130,386 | 162,795 | 190,936 | 224,521 | 252,220 |
| Industrial Firm (Large) | 14,400 | 27,650 | 32,040 | 46,000 | 47,650 | 49,100 | 14,400 | 27,650 | 30,040 | 46,000 | 47,650 | 49,100 |
| Total Firm Gas Contract Demands | 42,120 | 160,286 | 192,835 | 236,926 | 271,713 | 301,320 | 40,905 | 158,036 | 192,835 | 236,936 | 272,171 | 301,320 |
| Annual Sales Requirements | | | | | | | | | | | | |
| General Service & Ind. Firm (Large) | 13,025,100 | 47,040,100 | 56,062,558 | 68,869,950 | 78,508,260 | 85,720,140 | 13,006,500 | 47,114,294 | 55,952,328 | 68,404,769 | 78,894,427 | 85,467,124 |
| Additional Firm (Consumers' Gas Co.) | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,402,500 | 14,235,000 | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,403,000 | 14,235,000 |
| Small General Service Firm | 1,502,880 | 1,986,500 | 2,598,600 | 3,125,200 | 3,579,600 | 3,951,000 | 1,502,870 | 1,787,130 | 2,274,465 | 2,585,648 | 2,974,842 | 3,261,802 |
| Manitoba Power Co. Firm | - | 1,000,000 | 1,240,000 | - | - | - | - | 1,000,000 | 1,240,000 | - | - | - |
| Union Gas Co. Annual Firm | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| Total Firm Gas Requirements | 14,527,980 | 54,041,600 | 79,230,158 | 96,695,150 | 113,290,360 | 127,706,140 | 14,509,370 | 53,916,424 | 70,795,793 | 95,690,417 | 113,072,269 | 126,763,926 |
| Interruptible Excess-Manitoba Pr. Co. | - | - | - | 2,100,000 | 3,100,000 | - | - | - | - | 2,100,000 | 3,100,000 | - |
| -Union Gas Co. | - | 5,000,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | - | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| -All Others | 351,900 | - | - | - | - | - | 351,900 | - | - | - | - | - |
| Total Interruptible (Excess) | 351,900 | 5,000,000 | 7,500,000 | 9,600,000 | 10,600,000 | 7,500,000 | 351,900 | 5,000,000 | 5,000,000 | 7,100,000 | 8,100,000 | 5,000,000 |
| Seasonal Off-Peak (6-9 Mos. Firm) | 1,455,800 | 3,760,900 | 5,977,300 | 4,649,200 | 3,913,200 | 3,379,600 | 1,455,800 | 3,760,900 | 3,738,400 | 3,057,600 | 2,689,600 | 2,422,300 |
| Total Annual Gas Sales Requirements | 16,335,680 | 62,802,500 | 92,707,458 | 110,944,350 | 127,803,560 | 138,585,740 | 16,317,070 | 62,677,324 | 77,534,193 | 105,848,017 | 123,861,869 | 134,186,726 |
| EASTERN ONTARIO RATE ZONE | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm - | | | | | | | | | | | | |
| Quebec Natural Gas Corp. | 28,500 | 38,000 | 51,000 | 67,500 | 78,000 | 87,000 | 22,657 | 37,703 | 54,984 | 70,562 | 84,140 | 93,718 |
| All Others (Per Plan I) | - | 11,595 | 21,561 | 27,563 | 35,677 | 40,231 | - | 9,935 | 18,403 | 22,900 | 30,067 | 34,062 |
| Total | 28,500 | 49,595 | 72,561 | 95,063 | 113,677 | 127,231 | 22,657 | 47,638 | 73,387 | 93,462 | 114,207 | 127,780 |
| Industrial Firm (Large) - | | | | | | | | | | | | |
| Quebec Natural Gas Corp. | 10,000 | 10,000 | 11,000 | 11,500 | 12,000 | 13,600 | 7,343 | 8,297 | 17,016 | 17,438 | 17,860 | 18,282 |
| All Others (Per Plan II) | - | 598 | 603 | 603 | 603 | 603 | - | 12,445 | 12,445 | 12,445 | 12,445 | 12,445 |
| Total | 10,000 | 10,598 | 11,603 | 12,103 | 12,603 | 14,203 | 7,343 | 20,742 | 29,461 | 29,883 | 30,305 | 30,727 |
| Total Firm Gas Contract Demand | 38,500 | 60,193 | 84,164 | 107,166 | 126,280 | 141,434 | 30,000 | 68,380 | 102,848 | 123,345 | 144,512 | 158,507 |
| Annual Sales Requirements | | | | | | | | | | | | |
| General Service & Firm Ind. (Large) | | | | | | | | | | | | |
| Quebec Natural Gas Corp. | 13,400,000 | 16,790,000 | 21,825,000 | 28,205,000 | 31,510,000 | 35,214,000 | 11,327,282 | 17,452,969 | 25,890,782 | 31,322,968 | 35,946,532 | 39,876,250 |
| All Others (Per Plan I) | - | 4,210,000 | 7,813,000 | 10,011,000 | 12,997,000 | 14,660,000 | - | 7,503,670 | 9,888,097 | 11,712,213 | 14,115,673 | 16,199,414 |
| Total | 13,400,000 | 21,000,000 | 29,638,000 | 38,216,000 | 44,507,000 | 49,874,000 | 11,327,282 | 24,956,639 | 35,778,879 | 43,035,181 | 50,062,205 | 56,075,664 |
| Seasonal Off-Peak | | | | | | | | | | | | |
| Quebec Natural Gas Corp. | - | - | - | - | - | - | - | - | - | 6,522,914 | 5,565,524 | 4,622,198 |
| All Others (Per Plan I) | - | 5,000,000 | 5,000,000 | 4,000,000 | 3,500,000 | 3,000,000 | - | 915,000 | 915,000 | 915,000 | 915,000 | 915,000 |
| Total | - | 5,000,000 | 5,000,000 | 4,000,000 | 3,500,000 | 3,000,000 | - | 915,000 | 915,000 | 7,437,914 | 6,480,524 | 5,537,198 |
| Interruptible (Excess) - | | | | | | | | | | | | |
| Quebec Natural Gas Corp. | - | 5,000,000 | 5,000,000 | 3,000,000 | - | - | 3,380,965 | 8,485,432 | 8,061,111 | - | - | - |
| All Others | - | 4,975,000 | 3,748,000 | 3,522,000 | 2,442,000 | 2,088,000 | - | 4,747,173 | 3,536,767 | 2,339,598 | 1,402,200 | 90,000 |
| Total | - | 9,975,000 | 8,748,000 | 6,522,000 | 2,442,000 | 2,088,000 | 3,380,965 | 13,232,605 | 11,597,878 | 2,339,598 | 1,402,200 | 90,000 |
| Total Annual Gas Sales Requirements | 13,400,000 | 35,975,000 | 43,386,000 | 48,738,000 | 50,449,000 | 54,962,000 | 14,708,247 | 39,104,244 | 48,291,757 | 52,812,693 | 57,444,329 | 61,702,662 |

1/ Plan II differs from Plan I only in that Plan II assumed service to Quebec Natural Gas Corporation will commence on or before November 1, 1957, instead of on or before November 1, 1958 as assumed in Plan I, with natural gas supplied from U. S. sources during interim year.

PLAN II (SEE FOOTNOTE 1/)

| | Per October, 1950 Supplemental Report | | | | | | As Revised Per Subject Market Study Report | | | | | |
|--------------------------------------|---------------------------------------|------------|-------------|-------------|-------------|-------------|--|-------------|------------|-------------|-------------|-------------|
| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
| <u>SUMMARY ALL RATE ZONES</u> | | | | | | | | | | | | |
| Contract Demands | | | | | | | | | | | | |
| General Service Firm | 56,220 | 182,231 | 233,356 | 285,989 | 337,740 | 379,451 | 49,162 | 178,024 | 236,182 | 284,398 | 338,728 | 380,000 |
| Industrial Firm (Large) | 24,400 | 38,248 | 43,643 | 58,103 | 60,253 | 63,303 | 21,743 | 48,392 | 52,501 | 75,883 | 77,955 | 79,827 |
| Total Firm Gas Contract Demands | 80,620 | 220,479 | 276,999 | 344,092 | 397,993 | 442,754 | 70,905 | 226,416 | 288,683 | 360,281 | 416,683 | 459,827 |
| Annual Sales Requirements | | | | | | | | | | | | |
| General Service & Ind. Firm (Large) | 2,425,100 | 68,040,100 | 85,700,558 | 107,085,950 | 123,015,260 | 135,594,140 | 24,333,782 | 72,070,933 | 1,731,207 | 111,439,950 | 128,956,632 | 141,541,748 |
| Additional Firm (Consumers' Gas Co.) | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,402,500 | 14,235,000 | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,402,000 | 14,235,000 |
| Small General Service Firm | 1,502,880 | 1,986,500 | 2,598,600 | 3,125,200 | 3,579,600 | 3,951,000 | 1,502,870 | 1,787,130 | 2,204,465 | 2,585,648 | 2,974,842 | 3,261,802 |
| Manitoba Power Co. Firm | - | 1,000,000 | 1,240,000 | - | - | - | - | 1,000,000 | 1,240,000 | - | - | - |
| Union Gas Co. Annual Firm | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| Total Firm Gas Requirements | 27,927,980 | 75,041,600 | 108,868,158 | 134,911,150 | 157,797,360 | 177,580,140 | 25,836,652 | 78,873,063 | 11,574,772 | 136,225,598 | 163,134,474 | 182,839,590 |
| Interruptible (Excess) | | | | | | | | | | | | |
| Manitoba Power Co. | - | - | - | 2,100,000 | 3,100,000 | - | - | - | - | 2,100,000 | 3,100,000 | - |
| Union Gas Co. | - | 5,000,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | - | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| All Others | 351,900 | 9,975,000 | 8,748,000 | 6,522,000 | 2,442,000 | 2,088,000 | 3,732,865 | 13,232,605 | 11,597,678 | 2,339,798 | 1,402,200 | 90,000 |
| Total Interruptible (Excess) | 351,900 | 14,975,000 | 16,248,000 | 16,122,000 | 13,042,000 | 9,588,000 | 3,732,865 | 18,232,605 | 16,597,278 | 9,439,598 | 9,502,200 | 5,090,000 |
| Seasonal Off-Peak (6-9 Mos. Firm) | 1,455,800 | 8,760,900 | 10,977,300 | 8,649,200 | 7,413,200 | 6,379,600 | 1,455,800 | 4,675,900 | 4,553,400 | 10,495,514 | 9,170,124 | 7,952,398 |
| Total Annual Sales Requirements | 29,735,680 | 98,777,500 | 136,093,458 | 159,682,350 | 178,252,560 | 193,547,740 | 31,025,317 | 101,761,568 | 15,825,950 | 156,665,710 | 181,536,794 | 195,889,588 |

1/ Plan II differs from Plan I only in that Plan II assumes service to Quebec Natural Gas Corporation will commence on or before November 1, 1957, instead of on or before November 1, 1958 as assumed in Plan I, with natural gas supplied from U. S. sources during interim year.

**SUMMARY OF ESTIMATED PEAK DAY FIRM GAS SALES REQUIREMENTS
AND TOTAL GAS SALES OF TRANS-CANADA PIPELINES LIMITED**

PLAN I

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| SASKATCHEWAN ZONE | | | | | | |
| SASKATCHEWAN POWER CORPORATION | | | | | | |
| General Service Firm (90% L.F. Min.) 1/ | 9,500 | 11,500 | 13,500 | 15,000 | 17,000 | 19,000 |
| Zone Total - General Service Firm (90% L.F.) | 9,500 | 11,500 | 13,500 | 15,000 | 17,000 | 19,000 |
| MANITOBA ZONE | | | | | | |
| PLAINS WESTERN GAS & ELECTRIC COMPANY | | | | | | |
| Small General Service Firm 5/ | 4,115 | - | - | - | - | - |
| General Service Firm (50% L.F. Min.) | - | 5,486 | 6,735 | 7,626 | 8,463 | 9,070 |
| Total Firm | 4,115 | 5,486 | 6,735 | 7,626 | 8,463 | 9,070 |
| MANITOBA POWER CORPORATION | | | | | | |
| Retail Industrial Firm 5/ | - | 20,000 | 40,000 | - | - | - |
| INTERCITY GAS COMPANY | | | | | | |
| Small General Service Firm 5/ | 7,390 | 8,027 | 8,578 | 9,153 | 9,648 | 9,892 |
| WINNIPEG & CENTRAL GAS COMPANY | | | | | | |
| General Service Firm | | | | | | |
| Residential, Commercial & Small Industrial Requirements | 7,955 | 12,650 | 19,317 | 26,309 | 33,608 | 36,917 |
| Industrial Interruptible | - | 1,100 | 2,333 | 691 | - | 3,933 |
| Subtotal General Service Firm | 7,955 2/ | 13,750 2/ | 21,650 3/ | 27,000 3/ | 33,608 4/ | 40,850 3/ |
| Industrial Firm (Large) | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 |
| Total Firm (50% L.F. Min.) | 13,455 | 19,250 | 27,150 | 32,500 | 39,108 | 46,350 |
| Zone Totals - Small General Service Firm 5/ | 11,505 | 8,027 | 8,578 | 9,153 | 9,648 | 9,892 |
| General Service Firm (50% L.F.) | 7,955 | 19,236 | 28,385 | 34,626 | 42,071 | 49,920 |
| Industrial Firm - Large (50% L.F.) | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 |
| Manitoba Power Corporation Firm 5/ | - | 20,000 | 40,000 | - | - | - |
| Total Firm | 24,960 | 52,763 | 82,463 | 49,279 | 57,219 | 65,312 |

1/ Reflects only that portion of total requirements to be served by Trans-Canada; balance of requirements to be served from other sources of natural gas supply.

2/ Volumes shown are estimated total firm and interruptible requirements of Winnipeg market other than the 5,500 Mcf firm requirements of Canada Cement Co. (Note: Minimum General Service Firm Contract Demands of Winnipeg & Central Gas Company under May 12, 1955 contract for the years 1957/58 and 1958/59 are as follows: 1957/58 - 9,120 Mcf; 1958/59 - 16,000 Mcf)

3/ Minimum General Service Firm Contract Demands under May 12, 1955 contract.

4/ Minimum General Service Firm Contract Demands for 1961/62 under May 12, 1955 contract is 33,550 Mcf.

5/ Purchased from Trans-Canada on flat commodity rate; no contract demand charges payable.

1957/58 1958/59 1959/60 1960/61 1961/62 1962/63

WESTERN ONTARIO ZONE
NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

| | | | | | |
|--------------------------------------|--------|--------|--------|--------|--------|
| General Service Firm | | | | | |
| Residential, Commercial & Small | | | | | |
| Industrial Requirements | | | | | |
| Industrial Interruptible | | | | | |
| Total General Service Firm | 4,019 | 8,526 | 12,012 | 13,833 | 16,362 |
| Industrial Firm (Large) | 5,081 | 3,174 | 1,988 | 2,967 | 4,338 |
| Total Firm (75% L.F. Min.) <u>1/</u> | 9,100 | 11,700 | 14,000 | 16,800 | 20,700 |
| | 8,900 | 11,000 | 11,000 | 11,000 | 11,000 |
| | 18,000 | 22,700 | 25,000 | 27,800 | 31,700 |
| Zone Totals - General Service Firm | 9,100 | 11,700 | 14,000 | 16,800 | 20,700 |
| Industrial Firm (Large) | 8,900 | 11,000 | 11,000 | 11,000 | 11,000 |
| Total Firm (75% L.F.) | 18,000 | 22,700 | 25,000 | 27,800 | 31,700 |

NORTHERN ONTARIO ZONE
NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

| | | | | | |
|--------------------------------------|---|--------|--------|--------|--------|
| General Service Firm | | | | | |
| Residential, Commercial & Small | | | | | |
| Industrial Requirements | | | | | |
| Industrial Interruptible | | | | | |
| Total General Service Firm | - | 10,658 | 20,615 | 26,379 | 30,815 |
| Industrial Firm (Large) | - | 12,942 | 9,435 | 12,631 | 13,585 |
| Total Firm (75% L.F. Min.) <u>2/</u> | - | 23,600 | 30,050 | 39,010 | 44,400 |
| | - | 4,000 | 5,000 | 20,000 | 20,000 |
| | - | 27,600 | 35,050 | 59,010 | 64,400 |
| Zone Totals - General Service Firm | - | 23,600 | 30,050 | 39,010 | 44,400 |
| Industrial Firm (Large) | - | 4,000 | 5,000 | 20,000 | 20,000 |
| Total Firm (75% L.F.) | - | 27,600 | 35,050 | 59,010 | 64,400 |

1/ Volumes shown in each year are the contract demands set forth in the June 21, 1956 Precedent Agreement, as proposed to be amended.

2/ Volumes shown in each year are the contract demands set forth in the June 12, 1956 Amendment to December 23, 1955 Precedent Agreement.

CENTRAL ONTARIO ZONE

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED 3/

Small General Service Firm 1/

THE CONSUMERS' GAS COMPANY OF TORONTO

General Service Firm

Industrial Firm (Large)

Subtotal (75% L.F.Min.) 2/

Additional Firm (100% L.F.Min.) 1/ 2/

Total Firm 2/

UNION GAS COMPANY OF CANADA, LIMITED

Firm (On Annual Basis Only)

THE GRIMSBY NATURAL GAS COMPANY, LIMITED

Small General Service Firm 1/

DOMINION NATURAL GAS COMPANY, LIMITED

Small General Service Firm 1/

Zone Totals - Small General Service Firm 1/

General Service Firm (75% L.F.)

Industrial Firm - Large (75% L.F.)

Additional Firm (Consumers' Gas) 1/

Total Firm

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| - | - | 2,930 | 5,835 | 7,712 | 8,789 | 9,733 |
| - | - | 64,350 | 76,860 | 85,500 | 100,350 | 113,400 |
| - | - | 7,150 | 8,540 | 9,500 | 11,150 | 12,600 |
| - | - | 71,500 | 85,400 | 95,000 | 111,500 | 126,000 |
| - | - | 11,000 | 14,600 | 20,000 | 28,500 | 39,000 |
| - | - | 82,500 | 100,000 | 115,000 | 140,000 | 165,000 |
| - | - | - | - | - | - | - |
| - | - | 405 | 494 | 587 | 675 | 763 |
| - | - | 2,107 | 3,512 | 4,215 | 4,917 | 4,999 |
| - | - | 5,442 | 9,841 | 12,514 | 14,381 | 15,495 |
| - | - | 64,350 | 76,860 | 85,500 | 100,350 | 113,400 |
| - | - | 7,150 | 8,540 | 9,500 | 11,150 | 12,600 |
| - | - | 11,000 | 14,600 | 20,000 | 28,500 | 39,000 |
| - | - | 87,942 | 109,841 | 127,514 | 154,381 | 180,495 |

1/ Purchased from Trans-Canada on flat commodity rate; no contract demand charges payable.

2/ Contracted Demands per October 5, 1956 Contract.

3/ Shown in September, 1956 Supplemental Report as "Barrie, Orillia, etc."

EASTERN ONTARIO ZONE

LAKELAND NATURAL GAS LIMITED

General Service Firm (75% L.F. Min.)

LAKE SHORE GROUP

General Service Firm

Industrial Firm (Large)

Total Firm (75% L.F. Min.)

INTERPROVINCIAL UTILITIES LIMITED

General Service Firm

Industrial Firm (Large)

Total Firm (75% L.F. Min.)

QUEBEC NATURAL GAS CORPORATION

General Service Firm

Industrial Firm (Large)

Total Firm (90% L.F. Min.) 1/ 2/

Zone Totals - General Service Firm

- Industrial Firm (Large)

Total Firm

SUMMARY TOTALS - ALL ZONES

Small General Service Firm

General Service Firm

Industrial Firm (Large)

Additional Firm (Consumers' Gas Co.)

Manitoba Power Co. Firm (Retail Ind.)

Total Firm Gas Sales Requirements

Industrial Interruptible (Excess) Sales -

All Zones

Total Gas Sales 3/

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------|----------------|----------------|----------------|----------------|----------------|----------------|
| - | - | 3,900 | 6,500 | 7,900 | 10,350 | 11,000 |
| - | - | 4,596 445 | 8,600 445 | 10,516 445 | 11,793 445 | 12,643 445 |
| - | - | 5,041 | 9,045 | 10,961 | 12,238 | 13,088 |
| - | - | 1,439 | 3,303 | 4,484 | 7,924 | 11,419 |
| - | - | 12,000 | 12,000 | 12,000 | 12,000 | 12,000 |
| - | - | 13,439 | 15,303 | 16,484 | 19,924 | 23,419 |
| - | - | 22,657 | 37,703 | 54,984 | 70,562 | 84,140 |
| - | - | 7,343 | 8,297 | 17,016 | 17,438 | 17,860 |
| - | - | 30,000 | 46,000 | 72,000 | 88,000 | 102,000 |
| - | - | 32,592 | 56,106 | 77,884 | 100,629 | 119,202 |
| - | - | 19,788 | 20,742 | 29,461 | 29,883 | 30,305 |
| - | - | 52,380 | 76,848 | 107,345 | 130,512 | 149,507 |
| 11,505 | 13,469 | 18,419 | 21,667 | 24,029 | 25,387 | |
| 26,555 | 162,978 | 218,901 | 268,820 | 325,150 | 371,422 | |
| 14,400 | 47,438 | 50,782 | 75,461 | 77,533 | 79,405 | |
| - | 11,000 | 14,600 | 20,000 | 28,500 | 39,000 | |
| - | 20,000 | 40,000 | - | - | - | |
| 52,460 | 254,885 | 342,702 | 385,948 | 455,212 | 515,214 | |
| - | 37,315 | 25,898 | 52,652 | 35,188 | 23,086 | |
| 52,460 | 292,200 | 368,600 | 438,600 | 490,400 | 538,300 | |

1/ Assumed to be purchased under 75% L.F. Minimum "take-or-pay-for" rate in October, 1956 Supplemental Report.

2/ Contract Demands recommended by Commonwealth Services Inc. Present Contract Demands under July 13, 1955 Amendment to existing Sales Contract (and reflected in Commonwealth Services Inc. September, 1955 Trans-Canada Supplemental Report) are as follows: 1957/58 - 38,500 Mcf; 1958/59 - 48,000 Mcf; 1959/60 - 62,000 Mcf; 1960/61 - 79,000 Mcf; 1961/62 and thereafter - 90,000 Mcf.

3/ Pipeline sales capacity, except 1957/58.

SUMMARY OF ESTIMATED PEAK DAY FIRM GAS SALES REQUIREMENTS
AND TOTAL GAS SALES OF TRANS-CANADA PIPELINES LIMITED

PLAN II (SEE FOOTNOTE 1/)

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| SUMMARY TOTALS - ALL ZONES EXCEPT EASTERN ONTARIO ZONE PER PLAN I | | | | | | |
| Small General Service Firm | 11,505 | 13,469 | 18,419 | 21,667 | 24,029 | 25,387 |
| General Service Firm | 26,505 | 130,386 | 162,795 | 190,936 | 224,521 | 252,220 |
| Industrial Firm (Large) | 14,400 | 27,650 | 30,040 | 46,000 | 47,650 | 49,100 |
| Additional Firm (Consumers' Gas Co.) | - | 11,000 | 14,600 | 20,000 | 28,500 | 39,000 |
| Manitoba Power Corp. Firm (Retail Ind.) | - | 20,000 | 40,000 | - | - | - |
| Total Firm Gas Sales Requirements | 52,410 | 202,505 | 265,854 | 278,603 | 324,700 | 365,797 |
| EASTERN ONTARIO ZONE PER PLAN II | | | | | | |
| General Service Firm | 22,657 | 37,703 | 54,984 | 70,562 | 84,140 | 93,718 |
| Quebec Natural Gas Corporation | - | 9,935 | 18,403 | 22,900 | 30,067 | 34,062 |
| All Others (Per Plan II) | 22,657 | 47,638 | 73,387 | 93,462 | 114,207 | 127,780 |
| Subtotal | 7,343 | 8,297 | 17,016 | 17,438 | 17,860 | 18,282 |
| Quebec Natural Gas Corporation | - | 12,445 | 12,445 | 12,445 | 12,445 | 12,445 |
| All Others (Per Plan II) | 7,343 | 20,742 | 29,461 | 29,883 | 30,305 | 30,727 |
| Subtotal | 30,000 | 68,380 | 102,848 | 123,345 | 144,512 | 158,507 |
| Total Firm Gas Sales Requirements | 11,505 | 13,469 | 18,419 | 21,667 | 24,029 | 25,387 |
| Small General Service Firm | 49,162 | 178,024 | 236,182 | 284,398 | 338,722 | 350,000 |
| General Service Firm | 21,743 | 48,392 | 59,501 | 75,883 | 77,955 | 79,827 |
| Industrial Firm (Large) | - | 11,000 | 14,600 | 20,000 | 28,500 | 39,000 |
| Additional Firm (Consumers' Gas Co.) | - | 20,000 | 40,000 | - | - | - |
| Manitoba Power Corp. Firm (Retail Ind.) | 82,410 | 270,885 | 368,702 | 401,948 | 469,212 | 524,214 |
| Total Firm Gas Sales Requirements | - | 21,315 | (102) | 36,652 | 21,188 | 14,086 |
| Industrial Interruptible (Excess) - All Zones | 82,410 | 292,200 | 368,600 | 438,600 | 490,400 | 538,300 |
| Total Gas Sales 2/ | | | | | | |

1/ Plan II differs from Plan I only in that Plan II assumes service to Quebec Natural Gas Corporation will commence on or before November 1, 1957, instead of on or before November 1, 1958 as assumed in Plan I, with natural gas supplied from U. S. sources during interim year.

2/ Pipeline Sales Capacity except 1957/58.

SUMMARY OF ESTIMATED ANNUAL GAS SALES REQUIREMENTS

AND GAS SALES OF TRANS-CANADA PIPELINES LIMITED

PLAN I

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| <u>SASKATCHEWAN ZONE</u> | | | | | | |
| SASKATCHEWAN POWER CORPORATION | | | | | | |
| General Service Firm | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| Zone Total - General Service Firm | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| <u>MANITOBA ZONE</u> | | | | | | |
| PLAINS WESTERN GAS & ELECTRIC COMPANY | | | | | | |
| Small General Service Firm | 579,280 | - | - | - | - | - |
| General Service Firm | - | 1,104,103 | 1,261,858 | 1,401,153 | 1,538,860 | 1,656,240 |
| Interruptible (Excess) | 351,900 | - | - | - | - | - |
| Total | 931,180 | 1,104,103 | 1,261,858 | 1,401,153 | 1,538,860 | 1,656,240 |
| MANITOBA POWER CORPORATION(Retail Industrial) | | | | | | |
| Firm | - | 1,000,000 | 1,240,000 | - | - | - |
| Interruptible (Excess) | - | - | - | 2,100,000 | 3,100,000 | - |
| Total | - | 1,000,000 | 1,240,000 | 2,100,000 | 3,100,000 | - |
| INTERCITY GAS COMPANY | | | | | | |
| Small General Service Firm | 923,590 | 995,525 | 1,064,650 | 1,136,197 | 1,218,602 | 1,294,009 |
| Seasonal Off-Peak (9 Mo's. Firm) | 91,800 | 96,900 | 102,000 | 102,000 | 102,000 | 102,000 |
| Total | 1,015,390 | 1,092,425 | 1,166,650 | 1,238,197 | 1,320,602 | 1,396,009 |
| WINNIPEG & CENTRAL GAS COMPANY | | | | | | |
| General Service and Industrial Firm(Large) | 3,489,400* | 4,745,000* | 5,775,000* | 6,958,580 | 8,227,154 | 9,214,484 |
| Seasonal Off-Peak (9 Mo's. Firm) | 1,364,000 | 1,364,000 | 1,364,000 | 1,364,000 | 1,364,000 | 1,364,000 |
| Total | 4,853,400 | 6,109,000 | 7,139,000 | 8,322,580 | 9,591,154 | 10,578,484 |
| <u>ZONE TOTALS-General Service and Industrial</u> | | | | | | |
| Firm (Large) | 3,489,400 | 5,849,103 | 7,036,858 | 8,359,733 | 9,766,014 | 10,870,724 |
| -Small General Service Firm | 1,502,870 | 995,525 | 1,064,650 | 1,136,197 | 1,218,602 | 1,294,009 |
| -Manitoba Power Co. Firm | - | 1,000,000 | 1,240,000 | - | - | - |
| -Seasonal Off-Peak (9 Mo's.Firm) | 1,455,800 | 1,460,900 | 1,466,000 | 1,466,000 | 1,466,000 | 1,466,000 |
| -Manitoba Power Co. Interruptible (Excess) | - | - | - | 2,100,000 | 3,100,000 | - |
| -Interruptible (Excess) - Other | 351,900 | - | - | - | - | - |
| Total Gas Sales Requirements | 6,799,970 | 9,305,528 | 10,807,508 | 13,061,930 | 15,550,616 | 13,630,733 |

*Based on 50% minimum "take-or-pay-for"provisions of May 12, 1955 contract.

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| <u>WESTERN ONTARIO ZONE</u> | | | | | | |
| <u>NORTHERN ONTARIO NATURAL GAS COMPANY LTD.</u> | | | | | | |
| General Service and Industrial Firm (Large) | 6,223,000 | 7,042,700 | 7,756,300 | 8,625,000 | 9,835,000 | 9,835,000 |
| ZONE TOTAL-General Service and Industrial Firm (Large) | 6,223,000 | 7,042,700 | 7,756,300 | 8,625,000 | 9,835,000 | 9,835,000 |
| <u>NORTHERN ONTARIO ZONE</u> | | | | | | |
| <u>NORTHERN ONTARIO NATURAL GAS COMPANY LTD.</u> | | | | | | |
| General Service and Industrial Firm (Large) | - | 8,654,291 | 10,782,070 | 17,839,936 | 20,366,613 | 21,216,800 |
| Seasonal Off-Peak (6 Mo's. Firm) | - | 2,300,000 | 2,272,400 | 1,591,600 | 1,223,600 | 956,800 |
| Total | - | 10,954,291 | 13,054,470 | 19,431,536 | 21,590,213 | 22,173,600 |
| <u>ZONE TOTALS-General Service and Industrial Firm (Large)</u> | | | | | | |
| -Seasonal Off-Peak (6 Mo's. Firm) | - | 8,654,291 | 10,782,070 | 17,839,936 | 20,366,613 | 21,216,800 |
| Total Gas Sales Requirements | - | 2,300,000 | 2,272,400 | 1,591,600 | 1,223,600 | 956,800 |
| | - | 10,954,291 | 13,054,470 | 19,431,536 | 21,590,213 | 22,173,600 |

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| <u>CENTRAL ONTARIO ZONE</u> | | | | | | |
| NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED | | | | | | |
| Small General Service Firm | - | 380,197 | 590,084 | 721,428 | 919,656 | 1,042,823 |
| CONSUMERS' GAS COMPANY OF TORONTO | | | | | | |
| General Service and Industrial Firm (Large) | - | 21,580,600 | 25,696,000 | 28,378,800 | 33,032,000 | 36,956,300 |
| Additional Firm | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,403,000 | 14,235,000 |
| Total | - | 25,595,600 | 31,025,000 | 35,678,800 | 43,435,000 | 51,191,300 |
| UNION GAS COMPANY OF CANADA LIMITED ^{1/} | | | | | | |
| Firm (on annual basis only) | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| Interruptible (Excess) | - | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| Total | - | 5,000,000 | 19,000,000 | 22,400,000 | 25,800,000 | 28,800,000 |
| THE GRIMBSY NATURAL GAS COMPANY LIMITED | | | | | | |
| Small General Service Firm | - | 111,408 | 119,731 | 128,023 | 136,584 | 144,970 |
| DOMINION NATURAL GAS CO. LIMITED | | | | | | |
| Small General Service Firm | - | 300,000 | 500,000 | 600,000 | 700,000 | 780,000 |
| ZONE TOTALS-General Service and Industrial Firm (Large) | | | | | | |
| -Small General Service Firm | - | 21,580,600 | 25,696,000 | 28,378,800 | 33,032,000 | 36,956,300 |
| -Additional Firm (Consumers' Gas) | - | 791,605 | 1,209,815 | 1,449,451 | 1,756,240 | 1,967,793 |
| -Union Gas Co. Annual Firm | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,403,000 | 14,235,000 |
| -Union Gas Co. Interruptible (Excess) | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| Total Gas Sales Requirements | - | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| | - | 31,387,205 | 51,234,815 | 59,528,251 | 70,991,240 | 81,959,093 |

^{1/} Includes only the portion of Union's natural gas requirements to be supplied by Trans-Canada. Under June 5, 1956 Sales Contract Trans-Canada is obligated to deliver the following maximum annual volumes:- 1959/60-16,500,000 Mcf; 1960/61-20,500,000 Mcf; 1961/62-24,500,000 Mcf; 1962/63-28,000,000 Mcf; increasing to 64,000,000 Mcf in 1969/70. Union is obligated to "take-or-pay-for" 75% of such annual volumes.

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| <u>EASTERN ONTARIO ZONE</u> | | | | | | |
| <u>LAKELAND NATURAL GAS CO.</u> | | | | | | |
| General Service Firm | - | 1,397,538 | 2,344,141 | 2,857,799 | 3,734,219 | 3,951,319 |
| <u>LAKE SHORE GROUP</u> | | | | | | |
| General Service & Industrial Firm (Large) | - | 1,652,000 | 2,806,000 | 3,400,000 | 3,797,000 | 3,967,000 |
| Interruptible (Excess) | - | 1,395,000 | 687,000 | 362,000 | 143,000 | 90,000 |
| Total | - | 3,047,000 | 3,493,000 | 3,762,000 | 3,940,000 | 4,057,000 |
| <u>INTERPROVINCIAL UTILITIES LTD.</u> | | | | | | |
| General Service & Industrial Firm (Large) | - | 4,454,132 | 4,737,956 | 5,454,414 | 6,584,454 | 8,281,095 |
| Seasonal Off-Peak (Av. 7 Mo's. Firm) | - | 915,000 | 915,000 | 915,000 | 915,000 | 915,000 |
| Interruptible (Excess) | - | 3,352,173 | 2,849,767 | 1,977,598 | 1,259,200 | - |
| Total | - | 8,721,305 | 8,502,723 | 8,347,012 | 8,758,654 | 9,196,095 |
| <u>QUEBEC NATURAL GAS CORPORATION LIMITED</u> | | | | | | |
| General Service and Industrial Firm (Large) | - | 11,327,282 | 17,452,969 | 25,890,782 | 31,322,968 | 35,946,532 |
| Seasonal Off-Peak (6 Mo's. Firm) | - | - | - | - | 6,522,914 | 5,565,524 |
| Interruptible (Excess) | - | 3,380,965 | 8,485,432 | 8,061,111 | - | - |
| Total | - | 14,708,247 | 25,938,401 | 33,951,893 | 37,845,882 | 41,512,056 |
| <u>ZONE TOTALS-General Service & Industrial Firm (Large)</u> | | | | | | |
| -Seasonal Off-Peak (6-7 Mo's. Firm) | - | 18,830,952 | 27,341,066 | 37,602,995 | 45,438,641 | 52,145,946 |
| -Interruptible (Excess) | - | 915,000 | 915,000 | 915,000 | 7,437,914 | 6,480,524 |
| Total Gas Sales Requirements | - | 8,128,138 | 12,022,199 | 10,400,709 | 1,402,200 | 90,000 |
| | - | 27,874,090 | 40,278,265 | 48,918,704 | 54,278,755 | 58,716,470 |

SUMMARY TOTALS - ALL ZONES

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| General Service and Industrial Firm (Large) | 13,006,500 | 65,945,246 | 83,293,394 | 106,007,764 | 124,333,068 | 137,613,070 |
| Small General Service Firm | 1,502,870 | 1,787,130 | 2,274,465 | 2,585,648 | 2,974,842 | 3,261,802 |
| Additional Firm (Consumers Gas Co.) | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,403,000 | 14,235,000 |
| Union Gas Co. Annual Firm | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| Manitoba Power Co. Firm | - | 1,000,000 | 1,240,000 | - | - | - |
| Seasonal Off-Peak | 1,455,800 | 4,675,900 | 4,653,400 | 3,972,600 | 10,127,514 | 8,903,324 |
| Interruptible (Excess) - Union Gas Co. | - | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| - Manitoba Power Co. | - | - | - | 2,100,000 | 3,100,000 | - |
| - Other | 351,900 | 8,128,138 | 12,022,199 | 10,400,709 | 1,402,200 | 90,000 |
| Total Annual Gas Sales Requirements | 16,317,070 | 90,551,414 | 127,812,458 | 154,766,721 | 178,140,624 | 192,903,196 |
| Less Curtailments - Interruptible (Excess) | - | - | - | (2,681,171) | (6,402,200) | (5,090,000) |
| - Seasonal Off-Peak | - | - | - | - | (1,691,864) | (1,157,196) |
| Total Curtailments | - | - | - | (2,681,171) | (8,094,064) | (6,247,196) |
| Total Annual Gas Sales | 16,317,070 | 90,551,414 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 |
| Pipeline Total Annual Sales Capacity (@ 95% L. F.) | - | 101,200,000 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 |

SUMMARY OF ANNUAL GAS SALES REQUIREMENTS AND
GAS SALES OF TRANS-CANADA PIPE LINES LIMITED

PLAN II (SEE FOOTNOTE 1/)

| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--|------------|-------------|-------------|-------------|-------------|-------------|
| SUMMARY TOTALS - ALL ZONES EXCEPT EASTERN ONTARIO ZONE PER PLAN I | | | | | | |
| General Service & Industrial Firm (Large) | 13,006,500 | 47,114,294 | 55,952,328 | 68,404,769 | 78,894,427 | 85,467,124 |
| Small General Service Firm | 1,502,870 | 1,787,130 | 2,274,465 | 2,585,648 | 2,974,842 | 3,261,802 |
| Additional Firm (Consumers' Gas Co.) | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,403,000 | 14,235,000 |
| Union Gas Co. Annual Firm | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| Manitoba Power Co. Firm | - | 1,000,000 | 1,240,000 | - | - | - |
| Seasonal Off-Peak | 1,455,800 | 3,760,900 | 3,738,400 | 3,057,600 | 2,689,600 | 2,422,800 |
| Interruptible (Excess) - Union Gas Co. | - | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| - Manitoba Power Co. | - | - | - | 2,100,000 | 3,100,000 | - |
| - All Others | 351,900 | - | - | - | - | - |
| Total Annual Gas Sales Requirements | 16,317,070 | 62,677,324 | 87,534,193 | 105,848,017 | 123,861,869 | 134,186,726 |
| EASTERN ONTARIO ZONE PER PLAN II | | | | | | |
| General Service & Industrial Firm (Large) | | | | | | |
| Quebec Natural Corp. | 11,327,282 | 17,452,969 | 25,890,782 | 31,322,968 | 35,946,532 | 39,876,250 |
| All Others (Per Plan I) | - | 7,503,670 | 9,888,097 | 11,712,213 | 14,115,673 | 16,199,414 |
| Seasonal Off-Peak | - | - | - | - | - | - |
| Quebec Natural Corp. | - | - | - | 6,522,914 | 5,565,524 | 4,622,198 |
| All Others (Per Plan I) | - | 915,000 | 915,000 | 915,000 | 915,000 | 915,000 |
| Interruptible (Excess) | - | - | - | - | - | - |
| Quebec Natural Corp. | 3,380,965 | 8,485,432 | 8,061,111 | - | - | - |
| All Others (Per Plan I) | - | 4,747,173 | 3,536,767 | 2,339,598 | 1,402,200 | 90,000 |
| Total Annual Gas Sales Requirements | 14,708,247 | 39,104,244 | 48,291,757 | 52,812,693 | 57,944,929 | 61,702,862 |
| SUMMARY TOTALS - ALL ZONES - PLAN II | | | | | | |
| General Service & Industrial Firm (Large) | 24,333,782 | 72,070,933 | 91,731,207 | 111,439,950 | 128,956,632 | 141,542,788 |
| Small General Service Firm | 1,502,870 | 1,787,130 | 2,274,465 | 2,585,648 | 2,974,842 | 3,261,802 |
| Additional Firm (Consumers' Gas Co.) | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,403,000 | 14,235,000 |
| Union Gas Co. Annual Firm | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| Manitoba Power Co. Firm | - | 1,000,000 | 1,240,000 | - | - | - |
| Seasonal Off-Peak | 1,455,800 | 4,675,900 | 4,653,400 | 10,495,514 | 9,170,124 | 7,959,998 |
| Interruptible (Excess) - Union Gas Co. | - | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| - Manitoba Power Co. | - | - | - | 2,100,000 | 3,100,000 | - |
| - All Others | 3,732,865 | 13,232,600 | 11,597,878 | 2,339,598 | 1,402,200 | 90,000 |
| Total Annual Gas Sales Requirements | 31,025,317 | 101,781,568 | 135,825,950 | 158,660,710 | 181,806,798 | 195,889,588 |
| Less Curtailments - Interruptible (Excess) | - | 581,568 | 8,013,492 | 6,575,160 | 6,402,200 | 5,090,000 |
| - Seasonal Off-Peak | - | - | - | - | 5,358,038 | 4,143,588 |
| Total Curtailments | - | 581,568 | 8,013,492 | 6,575,160 | 11,760,238 | 9,233,588 |
| Total Annual Gas Sales | 31,025,317 | 101,200,000 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 |
| Pipeline Total Annual Sales Cap. (@ 95% L.F.) | - | 101,200,000 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 |

1/ Plan II differs from Plan I solely in that natural gas service to Quebec Natural begins in 1957/58 rather than 1958/59 as in Plan I.

ESTIMATE OF GAS REQUIREMENTS

SASKATCHEWAN POWER CORPORATION

REGINA, SWIFT CURRENT AND MOOSE JAW, SASKATCHEWAN

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| Total Annual Gas Requirements, Mcf | 7,076,000 | 8,404,000 | 9,889,000 | 11,191,000 | 12,608,000 | 13,920,000 |
| Total Annual Supply from Local Fields, Mcf | 3,781,900 | 4,416,400 | 5,207,900 | 5,989,700 | 6,713,200 | 7,331,700 |
| Total Annual Requirements from Trans-Canada, Mcf | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |

| | | | | | | |
|---|--------|--------|--------|--------|--------|--------|
| Total Maximum Day Gas Requirements, Mcf | 48,130 | 60,720 | 73,370 | 83,000 | 93,050 | 99,850 |
| Maximum Day Gas Supply from Local Fields, Mcf | 38,630 | 49,220 | 59,870 | 68,000 | 76,050 | 80,850 |
| Maximum Day Requirements from Trans-Canada, Mcf | 9,500 | 11,500 | 13,500 | 15,000 | 17,000 | 19,000 |

ESTIMATE OF GAS REQUIREMENTS

PLAINS WESTERN GAS & ELECTRIC COMPANY

BRANDON, MANITOBA

| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--|---------|---------|---------|---------|---------|---------|
|--|---------|---------|---------|---------|---------|---------|

NUMBER OF CUSTOMERS

| | | | | | | |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Residential - General | 1,262 | 1,626 | 1,990 | 2,354 | 2,718 | 3,002 |
| - Heating | 2,650 | 3,350 | 4,050 | 4,750 | 5,450 | 6,050 |
| Commercial - General | 161 | 204 | 247 | 290 | 332 | 341 |
| - Heating | 215 | 272 | 339 | 386 | 446 | 495 |
| Industrial - Interruptible | 12 | 12 | 12 | 12 | 12 | 12 |
| Total Customers | 4,300 | 5,464 | 6,638 | 7,792 | 8,958 | 9,900 |

ANNUAL SALES - MCF

| | | | | | | |
|-----------------------------|---------|-----------|-----------|-----------|-----------|-----------|
| Residential - General | 41,040 | 52,800 | 64,560 | 76,320 | 88,080 | 97,000 |
| - Heating | 441,782 | 558,479 | 675,176 | 791,878 | 908,570 | 1,008,570 |
| Commercial - General | 23,200 | 34,575 | 44,180 | 45,060 | 45,680 | 46,120 |
| - Heating | 61,900 | 91,600 | 108,200 | 118,000 | 126,880 | 136,880 |
| Industrial - Interruptible | 345,000 | 345,000 | 345,000 | 345,000 | 345,000 | 345,000 |
| Co. Use & Unaccounted For | 18,258 | 21,649 | 24,742 | 27,525 | 30,284 | 32,670 |
| Total Gas Requirements | 931,180 | 1,104,103 | 1,261,858 | 1,403,783 | 1,544,494 | 1,666,240 |
| Peak Shaving | - | - | - | 2,630 | 5,634 | 10,000 |
| Total Purchase Requirements | 931,180 | 1,104,103 | 1,261,858 | 1,401,153 | 1,538,960 | 1,656,240 |

MAXIMUM DAY SALES - MCF

| | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|
| Residential - General | 120 | 159 | 199 | 239 | 279 | 308 |
| - Heating | 3,277 | 4,275 | 5,272 | 6,270 | 7,267 | 8,082 |
| Commercial - General | 83 | 124 | 160 | 162 | 164 | 166 |
| - Heating | 554 | 820 | 972 | 1,063 | 1,139 | 1,234 |
| Co. Use & Unaccounted For | 81 | 108 | 132 | 155 | 177 | 196 |
| Total Gas Requirements | 4,115 | 5,486 | 6,735 | 7,889 | 9,026 | 9,986 |
| Peak Shaving | - | - | - | 263 | 563 | 916 |
| Total Purchase Requirements | 4,115 | 5,486 | 6,735 | 7,626 | 8,463 | 9,070 |

ESTIMATE OF GAS REQUIREMENTS

MANITOBA POWER CORPORATION

BRANDON, MANITOBA

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| ANNUAL GAS REQUIREMENTS | - | 1,000,000 | 1,240,000 | 2,100,000 | 3,100,000 | - |
| MAXIMUM DAY GAS REQUIREMENTS | - | 20,000 | 40,000 | - | - | - |

ESTIMATE OF GAS REQUIREMENTS

INTERCITY GAS COMPANY

PORTAGE LA PRAIRIE, MANITOBA

| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--------------------------------|---------|---------|---------|---------|---------|---------|
| NUMBER OF CUSTOMERS | | | | | | |
| Residential - General | 506 | 608 | 705 | 803 | 901 | 998 |
| - Heating | 1,010 | 1,215 | 1,408 | 1,605 | 1,802 | 1,999 |
| Commercial - General | 109 | 122 | 141 | 161 | 181 | 201 |
| - Heating | 109 | 122 | 141 | 161 | 181 | 201 |
| - Large | 2 | 2 | 2 | 2 | 2 | 2 |
| Total Customers | 1,736 | 2,069 | 2,397 | 2,732 | 3,067 | 3,401 |
| ANNUAL SALES - MCF | | | | | | |
| Residential - General | 16,488 | 19,704 | 22,842 | 26,022 | 29,202 | 31,398 |
| - Heating | 169,377 | 202,553 | 234,746 | 267,590 | 306,411 | 329,857 |
| Commercial - General | 3,924 | 4,392 | 5,076 | 5,796 | 6,516 | 7,007 |
| - Heating | 42,401 | 47,458 | 54,849 | 62,629 | 70,409 | 75,719 |
| - Large | 220,000 | 220,000 | 220,000 | 220,000 | 220,000 | 220,000 |
| Co. Use & Unacct. For | 9,024 | 9,882 | 10,750 | 11,640 | 12,531 | 15,942 |
| Total Gas Requirements | 461,214 | 503,989 | 548,263 | 593,677 | 645,069 | 679,923 |
| Total Peak Shaving | - | - | - | - | - | 2,520 |
| Total Purchase Requirements | 461,214 | 503,989 | 548,263 | 593,677 | 645,069 | 677,403 |
| MAXIMUM DAY SALES - MCF | | | | | | |
| Residential - General | 50 | 62 | 72 | 83 | 94 | 106 |
| - Heating | 1,284 | 1,595 | 1,868 | 2,145 | 2,334 | 2,546 |
| Commercial - Heating | 315 | 392 | 459 | 528 | 598 | 669 |
| - Large | 1,870 | 1,870 | 1,870 | 1,870 | 1,870 | 1,870 |
| Co. Use & Unacct. For | 70 | 78 | 85 | 92 | 100 | 107 |
| Total Gas Requirements | 3,589 | 3,997 | 4,354 | 4,718 | 4,996 | 5,298 |
| Total Peak Shaving | - | - | - | - | - | 298 |
| Total Purchase Requirements | 3,589 | 3,997 | 4,354 | 4,718 | 4,996 | 5,000 |

ESTIMATE OF GAS REQUIREMENTS

INTERCITY GAS COMPANY

RIVERS, MANITOBA

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | | |
| Residential - General | 75 | 90 | 105 | 120 | 135 | 150 |
| - Heating | 150 | 180 | 209 | 239 | 270 | 302 |
| Commercial - Large | 1 | 1 | 1 | 1 | 1 | 1 |
| - General | 15 | 18 | 21 | 24 | 27 | 30 |
| - Heating | 15 | 18 | 21 | 24 | 27 | 30 |
| - Seasonal | 1 | 1 | 1 | 1 | 1 | 1 |
| Total Customers | 257 | 308 | 358 | 409 | 461 | 514 |

| | | | | | | |
|-----------------------------|---------|---------|---------|---------|---------|---------|
| ANNUAL SALES - MCF | | | | | | |
| Residential - General | 2,430 | 2,916 | 3,402 | 3,888 | 4,374 | 4,703 |
| - Heating | 25,007 | 30,008 | 34,842 | 39,844 | 45,012 | 48,399 |
| Commercial - Large | 329,000 | 329,000 | 329,000 | 329,000 | 329,000 | 354,809 |
| - General | 450 | 540 | 630 | 720 | 810 | 871 |
| - Heating | 4,800 | 5,760 | 6,720 | 7,680 | 8,640 | 9,291 |
| - Seasonal | 20,000 | 25,000 | 30,000 | 30,000 | 30,000 | 30,000 |
| Co. Use & Unaccounted For | 7,634 | 7,864 | 8,092 | 8,223 | 8,357 | 8,987 |
| Total Purchase Requirements | 389,321 | 401,088 | 412,686 | 419,355 | 426,193 | 457,060 |

| | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|
| MAXIMUM DAY SALES - MCF | | | | | | |
| Residential - General | 7 | 9 | 11 | 12 | 14 | 16 |
| - Heating | 192 | 237 | 277 | 321 | 362 | 405 |
| Commercial - Large | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 | 2,800 |
| - General | 2 | 2 | 2 | 3 | 3 | 3 |
| - Heating | 37 | 49 | 55 | 63 | 72 | 81 |
| Co. Use & Unaccounted For | 61 | 62 | 63 | 64 | 65 | 66 |
| Total Purchase Requirements | 3,099 | 3,159 | 3,208 | 3,263 | 3,316 | 3,371 |

ESTIMATE OF GAS REQUIREMENTS

INTERCITY GAS COMPANY

NEEPAWA, MANITOBA

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | | |
| Residential - General | 84 | 221 | 257 | 294 | 332 | 371 |
| - Heating | 368 | 442 | 513 | 587 | 663 | 741 |
| Commercial - General | 37 | 45 | 52 | 59 | 67 | 75 |
| - Heating | 37 | 45 | 52 | 59 | 67 | 75 |
| - Seasonal | 1 | 1 | 1 | 1 | 1 | 1 |
| Total Customers | 527 | 754 | 875 | 1,000 | 1,130 | 1,263 |
| ANNUAL SALES - MCF | | | | | | |
| Residential - General | 2,964 | 7,170 | 8,334 | 9,528 | 10,764 | 11,578 |
| - Heating | 61,349 | 73,686 | 85,522 | 97,859 | 114,529 | 121,399 |
| Commercial - General | 1,110 | 1,350 | 1,560 | 1,770 | 2,010 | 2,162 |
| - Heating | 11,840 | 14,400 | 16,640 | 18,880 | 21,440 | 23,059 |
| - Seasonal | 70,000 | 70,000 | 70,000 | 70,000 | 70,000 | 70,000 |
| Co. Use & Unaccounted For | 2,945 | 3,332 | 3,641 | 3,961 | 4,295 | 4,618 |
| Total Purchase Requirements | 150,208 | 169,938 | 185,697 | 201,998 | 223,038 | 232,816 |
| MAXIMUM DAY SALES - MCF | | | | | | |
| Residential - General | 18 | 22 | 26 | 30 | 34 | 39 |
| - Heating | 467 | 581 | 678 | 782 | 891 | 1,014 |
| Commercial - General | 4 | 5 | 6 | 7 | 8 | 9 |
| - Heating | 95 | 118 | 138 | 158 | 181 | 207 |
| Co. Use & Unaccounted For | 12 | 15 | 17 | 20 | 22 | 25 |
| Total Purchase Requirements | 596 | 741 | 865 | 997 | 1,136 | 1,294 |

ESTIMATE OF GAS REQUIREMENTS

INTERCITY GAS COMPANY

HAMIOTA, MANITOBA

| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--------------------------------|---------|---------|---------|---------|---------|---------|
| NUMBER OF CUSTOMERS | | | | | | |
| Residential - General | 33 | 39 | 45 | 52 | 59 | 66 |
| - Heating | 65 | 78 | 90 | 103 | 118 | 131 |
| Commercial - General | 7 | 8 | 9 | 11 | 12 | 13 |
| - Heating | 7 | 8 | 9 | 11 | 12 | 13 |
| Total Customers | 112 | 133 | 153 | 177 | 201 | 223 |
| ANNUAL SALES - MCF | | | | | | |
| Residential - General | 1,074 | 1,266 | 1,458 | 1,692 | 1,914 | 2,058 |
| - Heating | 10,836 | 13,003 | 15,004 | 17,171 | 19,672 | 21,600 |
| Commercial - General | 210 | 240 | 270 | 330 | 360 | 387 |
| - Heating | 2,240 | 2,560 | 2,880 | 3,520 | 3,840 | 4,130 |
| Co. Use & Unacct. For | 287 | 341 | 392 | 454 | 516 | 552 |
| Total Purchase Requirements | 14,647 | 17,410 | 20,004 | 23,167 | 26,302 | 28,730 |
| MAXIMUM DAY SALES - MCF | | | | | | |
| Residential - General | 3 | 4 | 5 | 5 | 6 | 7 |
| - Heating | 83 | 102 | 119 | 137 | 157 | 180 |
| Commercial - General | 1 | 1 | 1 | 1 | 1 | 2 |
| - Heating | 17 | 20 | 23 | 29 | 32 | 34 |
| Co. Use & Unacct. For | 2 | 3 | 3 | 3 | 4 | 4 |
| Total Purchase Requirements | 106 | 130 | 151 | 175 | 200 | 227 |

ESTIMATE OF GAS REQUIREMENTS

WINNIPEG & CENTRAL GAS COMPANY

WINNIPEG, MANITOBA

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| NUMBER OF CUSTOMERS | | | | | | |
| Residential - General | 11,380 | 14,250 | 18,100 | 22,250 | 26,700 | 29,600 |
| - Heating | 4,980 | 7,850 | 11,700 | 15,850 | 20,300 | 24,100 |
| Commercial - General | 1,500 | 1,575 | 1,600 | 1,700 | 1,800 | 1,880 |
| - Heating | 410 | 1,000 | 1,180 | 1,215 | 1,340 | 1,450 |
| Industrial - Firm | 20 | 35 | 78 | 119 | 150 | 172 |
| - Interruptible | - | 10 | 23 | 32 | 40 | 48 |
| - Seasonal | 1 | 1 | 1 | 1 | 1 | 1 |
| Total Customers | 18,291 | 24,721 | 32,682 | 41,167 | 50,331 | 57,251 |
| ANNUAL SALES - MCF | | | | | | |
| Residential - General | 197,730 | 234,900 | 282,990 | 331,225 | 383,310 | 425,003 |
| - Heating | 830,166 | 1,308,595 | 1,950,390 | 2,642,195 | 3,384,010 | 3,890,267 |
| Commercial - General | 240,500 | 250,700 | 261,000 | 271,200 | 281,400 | 291,420 |
| - Heating | 81,500 | 250,100 | 352,900 | 445,900 | 535,500 | 595,500 |
| Industrial - Firm | 1,875,000 | 1,950,000 | 2,075,000 | 2,200,000 | 2,300,000 | 2,400,000 |
| - Interruptible | - | 325,000 | 700,000 | 950,000 | 1,200,000 | 1,450,000 |
| - Seasonal | 1,350,000 | 1,350,000 | 1,350,000 | 1,350,000 | 1,350,000 | 1,350,000 |
| Co. Use & Unaccounted For | 59,748 | 81,636 | 107,696 | 132,060 | 156,934 | 176,294 |
| Total Gas Requirements | 4,634,644 | 5,750,931 | 7,079,976 | 8,322,580 | 9,591,154 | 10,578,484 |
| MAXIMUM DAY SALES - MCF | | | | | | |
| Residential - General | 555 | 640 | 788 | 935 | 1,101 | 1,194 |
| - Heating | 5,303 | 8,057 | 13,052 | 18,452 | 24,257 | 26,756 |
| Commercial - General | 1,013 | 1,055 | 1,099 | 1,142 | 1,185 | 1,220 |
| - Heating | 693 | 2,126 | 3,000 | 3,790 | 4,552 | 4,789 |
| Industrial - Firm | 5,690 | 5,975 | 6,450 | 6,925 | 7,305 | 7,685 |
| - Interruptible | 201 | 297 | 428 | 565 | 708 | 773 |
| Co. Use & Unaccounted For | 13,455 | 18,150 | 24,817 | 31,809 | 39,108 | 42,417 |
| Total Gas Requirements | | | | | | |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

KENORA, ONTARIO

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | | |
| Residential - General | 184 | 300 | 367 | 427 | 488 | 558 |
| - Heating | 331 | 554 | 696 | 825 | 964 | 1,126 |
| Commercial - General | 38 | 50 | 55 | 60 | 65 | 70 |
| - Heating | 38 | 50 | 55 | 60 | 65 | 70 |
| Industrial - Firm | 6 | 8 | 10 | 10 | 10 | 10 |
| Total Customers | 597 | 962 | 1,183 | 1,382 | 1,592 | 1,834 |

| | | | | | | |
|-----------------------------|--------|---------|---------|---------|---------|---------|
| ANNUAL SALES - MCF | | | | | | |
| Residential - General | 4,860 | 8,052 | 10,104 | 11,988 | 13,920 | 17,414 |
| - Heating | 56,086 | 93,640 | 117,807 | 139,834 | 163,279 | 186,858 |
| Commercial - General | 1,368 | 1,800 | 1,980 | 2,160 | 2,340 | 2,947 |
| - Heating | 14,934 | 19,650 | 21,615 | 23,580 | 25,545 | 29,222 |
| Industrial - Firm | 20,310 | 27,548 | 34,856 | 34,856 | 34,856 | 34,856 |
| Co. Use & Unaccounted For | 1,951 | 3,014 | 3,727 | 4,248 | 4,799 | 5,426 |
| Total Purchase Requirements | 99,509 | 153,704 | 190,089 | 216,666 | 244,739 | 276,723 |

| | | | | | | |
|-----------------------------|-----|-------|-------|-------|-------|-------|
| MAXIMUM DAY SALES - MCF | | | | | | |
| Residential - General | 12 | 31 | 41 | 50 | 58 | 70 |
| - Heating | 270 | 674 | 906 | 1,077 | 1,269 | 1,449 |
| Commercial - General | 4 | 5 | 5 | 6 | 6 | 7 |
| - Heating | 126 | 166 | 183 | 199 | 222 | 254 |
| Industrial - Firm | 163 | 220 | 279 | 279 | 279 | 279 |
| Co. Use & Unaccounted For | 11 | 22 | 28 | 32 | 37 | 41 |
| Total Purchase Requirements | 586 | 1,118 | 1,442 | 1,643 | 1,871 | 2,100 |

ESTIMATE OF GAS REQUIREMENTS
NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED
DRYDEN, ONTARIO

| NUMBER OF CUSTOMERS | | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------------|--|---------|---------|---------|---------|---------|---------|
| Residential - General | | 63 | 102 | 123 | 141 | 164 | 191 |
| - Heating | | 113 | 189 | 236 | 278 | 324 | 378 |
| Commercial - General | | 16 | 20 | 22 | 24 | 26 | 28 |
| - Heating | | 16 | 20 | 22 | 24 | 26 | 28 |
| Total Customers | | 208 | 331 | 403 | 467 | 540 | 625 |
| ANNUAL SALES - MCF | | | | | | | |
| Residential - General | | 1,671 | 2,728 | 3,384 | 3,969 | 4,682 | 5,859 |
| - Heating | | 19,126 | 31,924 | 39,911 | 47,068 | 54,826 | 62,744 |
| Commercial - General | | 576 | 720 | 792 | 864 | 936 | 1,180 |
| - Heating | | 6,288 | 7,860 | 8,646 | 9,432 | 10,218 | 11,700 |
| Co. Use & Unaccounted For | | 553 | 865 | 1,055 | 1,227 | 1,413 | 1,629 |
| Total Purchase Requirements | | 28,214 | 44,097 | 53,788 | 62,560 | 72,075 | 83,112 |
| MAXIMUM DAY SALES - MCF | | | | | | | |
| Residential - General | | 4 | 11 | 14 | 16 | 19 | 23 |
| - Heating | | 93 | 226 | 300 | 355 | 423 | 484 |
| Commercial - General | | 2 | 2 | 2 | 2 | 3 | 4 |
| - Heating | | 53 | 66 | 73 | 80 | 86 | 98 |
| Co. Use & Unaccounted For | | 3 | 6 | 8 | 9 | 11 | 12 |
| Total Purchase Requirements | | 155 | 311 | 397 | 462 | 542 | 621 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

PORT ARTHUR, ONTARIO

| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------------|---------|---------|---------|---------|---------|---------|
| NUMBER OF CUSTOMERS | | | | | | |
| Residential - General | 631 | 1,062 | 1,337 | 1,599 | 1,879 | 2,208 |
| - Heating | 1,144 | 1,960 | 2,536 | 3,083 | 3,702 | 4,445 |
| Commercial - General | 95 | 122 | 149 | 176 | 203 | 234 |
| - Heating | 95 | 122 | 149 | 176 | 203 | 234 |
| Industrial - Firm | 9 | 12 | 15 | 18 | 22 | 27 |
| Total Customers | 1,974 | 3,278 | 4,186 | 5,052 | 6,009 | 7,148 |
| ANNUAL SALES - MCF | | | | | | |
| Residential - General | 16,795 | 28,506 | 36,796 | 44,918 | 53,599 | 67,464 |
| - Heating | 180,650 | 308,685 | 399,812 | 486,503 | 583,862 | 667,435 |
| Commercial - General | 3,399 | 4,392 | 5,364 | 6,336 | 7,308 | 9,254 |
| - Heating | 34,578 | 44,652 | 54,534 | 64,416 | 74,298 | 84,825 |
| Industrial - Firm | 48,491 | 62,310 | 76,380 | 95,610 | 110,255 | 123,979 |
| Co. Use & Unaccounted For | 5,678 | 8,971 | 11,458 | 13,956 | 16,586 | 19,059 |
| Total Purchase Requirements | 289,591 | 457,516 | 584,344 | 711,739 | 845,908 | 972,016 |
| MAXIMUM DAY SALES - MCF | | | | | | |
| Residential - General | 43 | 109 | 149 | 185 | 223 | 266 |
| - Heating | 932 | 2,364 | 3,271 | 4,012 | 4,814 | 5,534 |
| Commercial - General | 9 | 12 | 15 | 17 | 20 | 24 |
| - Heating | 316 | 406 | 495 | 585 | 675 | 775 |
| Industrial - Firm | 228 | 291 | 356 | 452 | 522 | 603 |
| Co. Use & Unaccounted For | 31 | 63 | 86 | 105 | 126 | 144 |
| Total Purchase Requirements | 1,559 | 3,245 | 4,372 | 5,356 | 6,110 | 7,346 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

FORT WILLIAM, ONTARIO

| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--------------------------------|---------|---------|---------|---------|---------|-----------|
| NUMBER OF CUSTOMERS | | | | | | |
| Residential - General | 737 | 1,198 | 1,473 | 1,722 | 1,987 | 2,293 |
| - Heating | 1,318 | 2,206 | 2,789 | 3,321 | 3,914 | 4,613 |
| Commercial - General | 98 | 126 | 155 | 183 | 211 | 243 |
| - Heating | 98 | 126 | 155 | 183 | 211 | 243 |
| Industrial - Firm | 9 | 12 | 15 | 17 | 21 | 26 |
| Total Customers | 2,260 | 3,668 | 4,587 | 5,426 | 6,344 | 7,418 |
| ANNUAL SALES - MCF | | | | | | |
| Residential - General | 19,322 | 32,052 | 40,528 | 48,365 | 56,679 | 71,339 |
| - Heating | 207,972 | 348,087 | 439,722 | 524,164 | 617,460 | 705,858 |
| Commercial - General | 3,505 | 4,536 | 5,580 | 6,588 | 7,596 | 9,620 |
| - Heating | 35,664 | 46,116 | 56,730 | 66,978 | 77,226 | 88,180 |
| Industrial - Firm | 48,491 | 62,310 | 76,380 | 84,787 | 97,773 | 110,165 |
| Co. Use & Unaccounted For | 6,299 | 9,862 | 12,379 | 14,618 | 17,135 | 19,703 |
| Total Purchase Requirements | 321,253 | 502,963 | 631,319 | 745,500 | 873,869 | 1,004,865 |
| MAXIMUM DAY SALES - MCF | | | | | | |
| Residential - General | 49 | 122 | 164 | 198 | 235 | 282 |
| - Heating | 1,072 | 2,659 | 3,604 | 4,320 | 5,122 | 5,852 |
| Commercial - General | 10 | 12 | 15 | 18 | 21 | 24 |
| - Heating | 326 | 419 | 515 | 608 | 702 | 802 |
| Industrial - Firm | 228 | 291 | 356 | 401 | 473 | 557 |
| Co. Use & Unaccounted For | 34 | 70 | 93 | 111 | 131 | 150 |
| Total Purchase Requirements | 1,719 | 3,573 | 4,747 | 5,656 | 6,684 | 7,667 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

GERALDTON, ONTARIO

| | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--------------------------------|---------|---------|---------|---------|---------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 65 | 104 | 126 | 149 | 168 |
| - Heating | 117 | 196 | 245 | 288 | 336 |
| Commercial - General | 17 | 21 | 23 | 25 | 27 |
| - Heating | 17 | 21 | 23 | 25 | 27 |
| Total Customers | 216 | 342 | 417 | 487 | 558 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 1,712 | 2,796 | 3,471 | 4,179 | 4,806 |
| - Heating | 19,448 | 32,570 | 40,524 | 47,040 | 54,956 |
| Commercial - General | 612 | 756 | 828 | 900 | 972 |
| - Heating | 7,072 | 8,736 | 9,568 | 10,400 | 11,232 |
| Co. Use & Unaccounted For | 577 | 897 | 1,088 | 1,250 | 1,439 |
| Total Purchase Requirements | 29,421 | 45,755 | 55,479 | 63,769 | 73,405 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 4 | 11 | 14 | 17 | 20 |
| - Heating | 96 | 232 | 309 | 373 | 434 |
| Commercial - General | 2 | 2 | 2 | 20 | 3 |
| - Heating | 57 | 70 | 77 | 83 | 90 |
| Co. Use & Unaccounted For | 3 | 6 | 8 | 10 | 11 |
| Total Purchase Requirements | 162 | 321 | 410 | 503 | 558 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

NIPIGON, ONTARIO

| NUMBER OF CUSTOMERS | | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------------|--|---------|---------|---------|---------|---------|
| Residential - General | | 48 | 76 | 95 | 108 | 121 |
| - Heating | | 87 | 138 | 176 | 212 | 244 |
| Commercial - General | | 12 | 15 | 17 | 18 | 19 |
| - Heating | | 12 | 15 | 17 | 18 | 19 |
| Total Customers | | 159 | 244 | 305 | 356 | 403 |
| ANNUAL SALES - MCF | | | | | | |
| Residential - General | | 1,264 | 2,046 | 2,604 | 3,029 | 3,450 |
| - Heating | | 12,686 | 21,829 | 26,823 | 31,413 | 36,889 |
| Commercial - General | | 432 | 540 | 612 | 648 | 684 |
| - Heating | | 4,392 | 5,490 | 6,222 | 6,588 | 6,954 |
| Co. Use & Unaccounted For | | 375 | 598 | 725 | 834 | 959 |
| Total Purchase Requirements | | 19,149 | 30,503 | 36,986 | 42,512 | 48,936 |
| MAXIMUM DAY SALES - MCF | | | | | | |
| Residential - General | | 3 | 8 | 11 | 12 | 14 |
| - Heating | | 71 | 169 | 231 | 271 | 312 |
| Commercial - General | | 1 | 1 | 2 | 2 | 2 |
| - Heating | | 40 | 50 | 56 | 60 | 63 |
| Co. Use & Unaccounted For | | 2 | 5 | 6 | 7 | 8 |
| Total Purchase Requirements | | 117 | 233 | 306 | 352 | 399 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

WESTERN ONTARIO ZONE

LARGE INDUSTRIAL CUSTOMERS

| TOTAL POTENTIAL ANNUAL GAS REQUIREMENTS - MCF | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|---|-----------|------------|------------|------------|------------|------------|
| Minnesota & Ontario Paper Co. | 1,783,000 | 2,597,000 | 2,597,000 | 2,597,000 | 2,597,000 | 2,597,000 |
| Dryden Paper Co. | 1,067,000 | 1,615,000 | 1,615,000 | 1,615,000 | 1,615,000 | 1,615,000 |
| Abitibi Pulp & Paper Co. - Mission Bay | 1,476,500 | 1,476,500 | 1,476,500 | 1,476,500 | 1,476,500 | 1,476,500 |
| - Thunder Bay | 582,650 | 582,650 | 582,650 | 582,650 | 582,650 | 582,650 |
| Great Lakes Pulp & Paper Co. | 4,260,000 | 5,254,000 | 5,254,000 | 5,254,000 | 5,254,000 | 5,254,000 |
| Provincial Paper Co. | 710,000 | 994,000 | 994,000 | 994,000 | 994,000 | 994,000 |
| St. Lawrence Pulp & Paper Co. | - | 1,988,000 | 1,988,000 | 1,988,000 | 1,988,000 | 1,988,000 |
| Total | 9,879,150 | 14,507,150 | 14,507,150 | 14,507,150 | 14,507,150 | 14,507,150 |

TOTAL POTENTIAL MAXIMUM DAY GAS REQUIREMENTS - MCF

| | | | | | | |
|--|--------|--------|--------|--------|--------|--------|
| Minnesota & Ontario Paper Co. | 7,000 | 10,150 | 10,150 | 10,150 | 10,150 | 10,150 |
| Dryden Paper Co. | 4,200 | 6,300 | 6,300 | 6,300 | 6,300 | 6,300 |
| Abitibi Pulp & Paper Co. - Mission Bay | 5,850 | 5,850 | 5,850 | 5,850 | 5,850 | 5,850 |
| - Thunder Bay | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 | 2,300 |
| Great Lakes Pulp & Paper Co. | 16,650 | 20,550 | 20,550 | 20,550 | 20,550 | 20,550 |
| Provincial Paper Co. | 2,830 | 3,900 | 3,900 | 3,900 | 3,900 | 3,900 |
| St. Lawrence Pulp & Paper Co. | - | 7,780 | 7,780 | 7,780 | 7,780 | 7,780 |
| Total | 38,830 | 56,830 | 56,830 | 56,830 | 56,830 | 56,830 |

ESTIMATED ANNUAL SALES - MCF

| | | | | | | |
|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Firm | | | | | | |
| Interruptible | 4,874,912 | 4,914,835 | 4,503,589 | 4,843,057 | 5,318,451 | 4,510,870 |
| Total | 609,521 | 921,015 | 1,716,913 | 1,953,013 | 2,373,677 | 2,865,073 |
| | 5,484,433 | 5,835,850 | 6,220,502 | 6,796,070 | 7,692,128 | 7,375,943 |

ESTIMATED MAXIMUM DAY (PIPELINE) SALES - MCF

| | | | | | | |
|--|---------|----------|----------|----------|----------|----------|
| (Purchased From Trans-Canada - Industrial Firm Rate) | 13,981 | 14,174 | 12,988 | 13,967 | 15,338 | 13,009 |
| (Purchased From Trans-Canada - General Firm Rate) 1/ | (8,900) | (11,000) | (11,000) | (11,000) | (11,000) | (11,000) |
| | (5,081) | (3,174) | (1,988) | (2,967) | (4,338) | (2,009) |

1/ Available Under General Firm Contract Demands.

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

HEARST, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 34 | 62 | 76 | 92 | 106 |
| - Heating | 77 | 126 | 155 | 185 | 215 |
| Commercial - General | 11 | 14 | 17 | 20 | 23 |
| - Heating | 11 | 14 | 17 | 20 | 23 |
| Total Customers | 133 | 216 | 265 | 317 | 367 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 1,217 | 2,022 | 2,570 | 3,082 | 3,588 |
| - Heating | 13,785 | 22,379 | 27,612 | 32,925 | 38,359 |
| Commercial - General | 576 | 720 | 900 | 1,044 | 1,152 |
| - Heating | 6,656 | 8,320 | 10,400 | 12,064 | 13,312 |
| Co. Use & Unaccounted For | 445 | 669 | 829 | 982 | 1,128 |
| Total Purchase Requirements | 22,679 | 34,110 | 42,311 | 50,097 | 57,539 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 3 | 8 | 11 | 13 | 16 |
| - Heating | 63 | 157 | 199 | 241 | 284 |
| Commercial - General | 2 | 2 | 2 | 3 | 3 |
| - Heating | 53 | 66 | 83 | 96 | 106 |
| Co. Use & Unaccounted For | 2 | 5 | 6 | 7 | 8 |
| Total Purchase Requirements | 123 | 238 | 301 | 360 | 417 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

KAPUSKASING, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 88 | 114 | 202 | 241 | 280 |
| - Heating | 203 | 328 | 405 | 483 | 562 |
| Commercial - General | 28 | 37 | 44 | 53 | 60 |
| - Heating | 28 | 37 | 44 | 53 | 60 |
| Total Customers | 347 | 516 | 695 | 830 | 962 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 3,216 | 5,346 | 6,792 | 8,145 | 9,481 |
| - Heating | 36,147 | 58,425 | 72,084 | 85,955 | 100,140 |
| Commercial - General | 936 | 1,224 | 1,476 | 1,764 | 2,016 |
| - Heating | 10,816 | 14,144 | 17,056 | 20,384 | 23,296 |
| Industrial - Firm | 42,500 | 42,500 | 42,500 | 42,500 | 42,500 |
| Co. Use & Unaccounted For | 1,872 | 2,433 | 2,798 | 3,175 | 3,548 |
| Total Purchase Requirements | 95,487 | 124,072 | 142,706 | 161,923 | 180,981 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 8 | 21 | 28 | 34 | 41 |
| - Heating | 165 | 413 | 521 | 631 | 743 |
| Commercial - General | 2 | 3 | 4 | 5 | 6 |
| - Heating | 87 | 113 | 136 | 163 | 186 |
| Industrial - Firm | 318 | 318 | 318 | 318 | 318 |
| Co. Use & Unaccounted For | 12 | 17 | 20 | 23 | 26 |
| Total Purchase Requirements | 592 | 885 | 1,027 | 1,174 | 1,320 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

SMOOTH ROCK FALLS, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 27 | 50 | 62 | 73 | 85 |
| - Heating | 64 | 102 | 126 | 150 | 176 |
| Commercial - General | 9 | 11 | 14 | 16 | 18 |
| - Heating | 9 | 11 | 14 | 16 | 18 |
| Total Customers | 109 | 174 | 216 | 255 | 297 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 958 | 1,734 | 2,203 | 2,642 | 3,075 |
| - Heating | 11,334 | 18,220 | 22,481 | 26,806 | 31,230 |
| Commercial - General | 216 | 288 | 324 | 396 | 468 |
| - Heating | 2,496 | 3,328 | 3,744 | 4,576 | 5,408 |
| Co. Use & Unaccounted For | 300 | 471 | 575 | 688 | 803 |
| Total Purchase Requirements | 15,304 | 24,041 | 29,327 | 35,108 | 40,984 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 3 | 7 | 9 | 11 | 13 |
| - Heating | 52 | 129 | 163 | 198 | 234 |
| Commercial - General | 1 | 1 | 1 | 1 | 1 |
| - Heating | 20 | 27 | 30 | 37 | 43 |
| Co. Use & Unaccounted For | 1 | 3 | 4 | 5 | 6 |
| Total Purchase Requirements | 77 | 167 | 207 | 252 | 297 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

COCHRANE, ONTARIO

| NUMBER OF CUSTOMERS | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------|---------|---------|---------|---------|---------|
| Residential - General | 95 | 119 | 144 | 170 | 196 |
| - Heating | 133 | 214 | 263 | 312 | 362 |
| Commercial - General | 17 | 22 | 26 | 31 | 36 |
| - Heating | 17 | 22 | 26 | 31 | 36 |
| Total Customers | 262 | 377 | 459 | 544 | 630 |

| | | | | | |
|-----------------------------|--------|--------|--------|--------|--------|
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 2,086 | 3,467 | 4,405 | 5,283 | 6,150 |
| - Heating | 23,129 | 37,215 | 45,736 | 54,257 | 62,952 |
| Commercial - General | 612 | 792 | 936 | 1,116 | 1,296 |
| - Heating | 6,902 | 8,932 | 10,556 | 12,586 | 14,616 |
| Co. Use & Unaccounted For | 655 | 1,008 | 1,233 | 1,465 | 1,700 |
| Total Purchase Requirements | 33,384 | 51,414 | 62,866 | 74,707 | 86,714 |

| | | | | | |
|-----------------------------|-----|-----|-----|-----|-----|
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 53 | 133 | 178 | 219 | 267 |
| - Heating | 108 | 270 | 339 | 409 | 480 |
| Commercial - General | 2 | 2 | 3 | 3 | 4 |
| - Heating | 57 | 73 | 86 | 103 | 120 |
| Co. Use & Unaccounted For | 4 | 10 | 12 | 15 | 17 |
| Total Purchase Requirements | 224 | 488 | 618 | 749 | 888 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

IROQUOIS FALLS, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 33 | 54 | 66 | 77 | 89 |
| - Heating | 63 | 102 | 126 | 150 | 175 |
| Commercial - General | 5 | 7 | 8 | 10 | 11 |
| - Heating | 5 | 7 | 8 | 10 | 11 |
| Total Customers | 106 | 170 | 208 | 247 | 286 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 869 | 1,445 | 1,835 | 2,201 | 2,562 |
| - Heating | 10,890 | 17,596 | 21,700 | 25,878 | 30,131 |
| Commercial - General | 180 | 216 | 252 | 288 | 360 |
| - Heating | 2,010 | 2,412 | 2,814 | 3,216 | 4,020 |
| Co. Use & Unaccounted For | 279 | 433 | 532 | 632 | 741 |
| Total Purchase Requirements | 14,228 | 22,102 | 27,133 | 32,215 | 37,814 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 2 | 6 | 7 | 9 | 11 |
| - Heating | 15 | 37 | 47 | 57 | 67 |
| Commercial - General | 1 | 1 | 1 | 1 | 1 |
| - Heating | 16 | 20 | 23 | 26 | 34 |
| Co. Use & Unaccounted For | 1 | 1 | 2 | 2 | 2 |
| Total Purchase Requirements | 35 | 65 | 80 | 95 | 115 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

ANSONVILLE, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 33 | 54 | 66 | 77 | 89 |
| - Heating | 63 | 102 | 126 | 150 | 175 |
| Commercial - General | 5 | 7 | 8 | 10 | 11 |
| - Heating | 5 | 7 | 8 | 10 | 11 |
| Total Customers | 106 | 170 | 208 | 247 | 286 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 869 | 1,445 | 1,835 | 2,201 | 2,562 |
| - Heating | 10,890 | 17,595 | 21,701 | 25,878 | 30,131 |
| Commercial - General | 324 | 432 | 504 | 612 | 720 |
| - Heating | 3,618 | 4,824 | 5,628 | 6,834 | 8,040 |
| Co. Use & Unaccounted For | 314 | 486 | 593 | 711 | 829 |
| Total Purchase Requirements | 16,015 | 24,782 | 30,261 | 36,236 | 42,282 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 2 | 6 | 7 | 10 | 11 |
| - Heating | 15 | 37 | 48 | 57 | 68 |
| Commercial - General | 1 | 1 | 1 | 2 | 2 |
| - Heating | 30 | 40 | 47 | 56 | 66 |
| Co. Use & Unaccounted For | 1 | 2 | 2 | 2 | 3 |
| Total Purchase Requirements | 49 | 86 | 105 | 127 | 150 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

TIMMINS, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|------------------|------------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 625 | 1,016 | 1,249 | 1,472 | 1,699 |
| - Heating | 1,282 | 2,071 | 2,554 | 3,046 | 3,546 |
| Commercial - General | 105 | 135 | 164 | 194 | 225 |
| - Heating | 105 | 135 | 164 | 194 | 225 |
| Total Customers | <u>2,117</u> | <u>3,357</u> | <u>4,131</u> | <u>4,906</u> | <u>5,695</u> |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 16,549 | 27,449 | 34,875 | 41,826 | 48,685 |
| - Heating | 221,095 | 356,990 | 440,572 | 525,404 | 611,739 |
| Commercial - General | 3,780 | 4,860 | 5,940 | 7,020 | 8,100 |
| - Heating | 42,210 | 54,270 | 66,330 | 78,390 | 90,450 |
| Industrial - Firm | 208,210 | 312,315 | 416,500 | 416,500 | 416,500 |
| Co. Use & Unaccounted For | 9,837 | 15,118 | 19,284 | 21,383 | 23,509 |
| Total Purchase Requirements | <u>501,681</u> | <u>771,002</u> | <u>983,501</u> | <u>1,090,523</u> | <u>1,198,983</u> |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 30 | 75 | 100 | 123 | 150 |
| - Heating | 1,068 | 2,615 | 3,319 | 4,020 | 4,260 |
| Commercial - General | 10 | 13 | 16 | 19 | 22 |
| - Heating | 334 | 430 | 526 | 621 | 717 |
| Industrial - Firm | 749 | 1,123 | 1,500 | 1,500 | 1,500 |
| Co. Use & Unaccounted For | 44 | 85 | 109 | 126 | 133 |
| Total Purchase Requirements | <u>2,235</u> | <u>4,341</u> | <u>5,570</u> | <u>6,409</u> | <u>6,782</u> |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

PORCUPINE, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 20 | 32 | 39 | 46 | 54 |
| - Heating | 44 | 71 | 88 | 105 | 122 |
| Commercial - General | 4 | 5 | 6 | 7 | 8 |
| - Heating | 4 | 5 | 6 | 7 | 8 |
| Total Customers | 72 | 113 | 139 | 165 | 192 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 521 | 867 | 1,101 | 1,321 | 1,537 |
| - Heating | 7,590 | 12,263 | 15,124 | 18,036 | 21,001 |
| Commercial - General | 108 | 144 | 180 | 216 | 252 |
| - Heating | 1,206 | 1,608 | 2,010 | 2,412 | 2,814 |
| Co. Use & Unaccounted For | 189 | 298 | 369 | 440 | 512 |
| Total Purchase Requirements | 9,614 | 15,180 | 18,784 | 22,425 | 26,116 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 1 | 3 | 4 | 5 | 7 |
| - Heating | 34 | 85 | 108 | 131 | 154 |
| Commercial - General | 1 | 1 | 1 | 1 | 1 |
| - Heating | 10 | 13 | 16 | 19 | 22 |
| Co. Use & Unaccounted For | 1 | 2 | 3 | 3 | 4 |
| Total Purchase Requirements | 47 | 104 | 132 | 159 | 188 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

SOUTH PORCUPINE, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 119 | 193 | 237 | 279 | 322 |
| - Heating | 247 | 399 | 492 | 586 | 683 |
| Commercial - General | 20 | 26 | 32 | 37 | 43 |
| - Heating | 20 | 26 | 32 | 37 | 43 |
| Total Customers | 406 | 644 | 793 | 939 | 1,091 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 3,129 | 5,201 | 6,608 | 7,925 | 9,225 |
| - Heating | 42,569 | 68,782 | 84,826 | 101,160 | 117,782 |
| Commercial - General | 576 | 720 | 900 | 1,044 | 1,224 |
| - Heating | 6,432 | 8,040 | 10,050 | 11,658 | 13,668 |
| Co. Use & Unaccounted For | 1,054 | 1,655 | 2,048 | 2,436 | 2,838 |
| Total Purchase Requirements | 53,760 | 84,398 | 104,432 | 124,223 | 144,737 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 8 | 20 | 27 | 33 | 40 |
| - Heating | 192 | 510 | 639 | 774 | 820 |
| Commercial - General | 2 | 2 | 2 | 3 | 3 |
| - Heating | 51 | 64 | 80 | 92 | 109 |
| Co. Use & Unaccounted For | 5 | 12 | 15 | 18 | 19 |
| Total Purchase Requirements | 258 | 608 | 763 | 920 | 991 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

SCHUMACHER, ONTARIO

| | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------|---------|---------|---------|---------|---------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 69 | 112 | 138 | 163 | 189 |
| - Heating | 145 | 235 | 290 | 345 | 402 |
| Commercial - General | 12 | 15 | 19 | 22 | 26 |
| - Heating | 12 | 15 | 19 | 22 | 26 |
| Total Customers | 238 | 377 | 466 | 552 | 643 |

| | | | | | |
|-----------------------------|--------|--------|--------|--------|--------|
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 1,825 | 3,034 | 3,855 | 4,623 | 5,381 |
| - Heating | 25,080 | 40,523 | 49,975 | 59,598 | 69,391 |
| Commercial - General | 396 | 504 | 612 | 720 | 828 |
| - Heating | 4,422 | 5,628 | 6,834 | 8,040 | 9,246 |
| Co. Use & Unaccounted For | 634 | 994 | 1,225 | 1,460 | 1,697 |
| Total Purchase Requirements | 32,357 | 50,683 | 62,501 | 74,441 | 86,543 |

| | | | | | |
|-----------------------------|-----|-----|-----|-----|-----|
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 5 | 12 | 16 | 19 | 23 |
| - Heating | 113 | 311 | 376 | 455 | 484 |
| Commercial - General | 1 | 1 | 2 | 2 | 2 |
| - Heating | 35 | 45 | 54 | 64 | 73 |
| Co. Use & Unaccounted For | 3 | 7 | 9 | 11 | 12 |
| Total Purchase Requirements | 157 | 376 | 457 | 551 | 594 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

MATHESON, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 16 | 28 | 33 | 39 | 45 |
| - Heating | 34 | 56 | 69 | 82 | 95 |
| Commercial - General | 3 | 4 | 4 | 5 | 6 |
| - Heating | 3 | 4 | 4 | 5 | 6 |
| Total Customers | 56 | 92 | 110 | 131 | 152 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 435 | 722 | 918 | 1,101 | 1,281 |
| - Heating | 5,940 | 9,598 | 11,836 | 14,115 | 16,435 |
| Commercial - General | 180 | 252 | 288 | 360 | 396 |
| - Heating | 2,010 | 2,814 | 3,216 | 4,020 | 4,422 |
| Co. Use & Unaccounted For | 171 | 268 | 325 | 392 | 451 |
| Total Purchase Requirements | 8,736 | 13,654 | 16,583 | 19,988 | 22,985 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 1 | 3 | 4 | 5 | 6 |
| - Heating | 26 | 67 | 85 | 102 | 121 |
| Commercial - General | 1 | 1 | 1 | 1 | 1 |
| - Heating | 16 | 22 | 25 | 32 | 35 |
| Co. Use & Unaccounted For | 1 | 2 | 2 | 3 | 3 |
| Total Purchase Requirements | 45 | 95 | 117 | 143 | 166 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

RAMORE, ONTARIO

| | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|----------------------------|---------|---------|---------|---------|---------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 16 | 27 | 33 | 39 | 45 |
| - Heating | 34 | 56 | 69 | 82 | 95 |
| Commercial - General | 3 | 4 | 4 | 5 | 6 |
| - Heating | 3 | 4 | 4 | 5 | 6 |
| Total Customers | 56 | 91 | 110 | 131 | 152 |

| | | | | | |
|-----------------------------|-------|--------|--------|--------|--------|
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 434 | 722 | 918 | 1,101 | 1,282 |
| - Heating | 5,940 | 9,598 | 11,836 | 14,115 | 16,435 |
| Commercial - General | 108 | 144 | 144 | 180 | 216 |
| - Heating | 1,206 | 1,608 | 1,608 | 2,010 | 2,412 |
| Co. Use & Unaccounted For | 154 | 241 | 290 | 348 | 407 |
| Total Purchase Requirements | 7,842 | 12,313 | 14,796 | 17,754 | 20,752 |

| | | | | | |
|--------------------------------|----|----|-----|-----|-----|
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 1 | 3 | 4 | 5 | 5 |
| - Heating | 27 | 67 | 85 | 102 | 121 |
| Commercial - General | - | - | - | 1 | 1 |
| - Heating | 10 | 13 | 13 | 16 | 19 |
| Co. Use & Unaccounted For | 1 | 2 | 2 | 2 | 3 |
| Total Purchase Requirements | 39 | 85 | 104 | 126 | 149 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

KIRKLAND LAKE, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 428 | 696 | 855 | 1,007 | 1,162 |
| - Heating | 881 | 1,420 | 1,745 | 2,075 | 2,408 |
| Commercial - General | 61 | 79 | 96 | 114 | 131 |
| - Heating | 61 | 79 | 96 | 114 | 131 |
| Industrial - Firm | 6 | 7 | 9 | 9 | 9 |
| Total Customers | <u>1,437</u> | <u>2,281</u> | <u>2,801</u> | <u>3,319</u> | <u>3,841</u> |

| | | | | | |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 11,314 | 18,781 | 23,862 | 28,618 | 33,311 |
| - Heating | 142,546 | 229,583 | 282,341 | 335,735 | 389,614 |
| Commercial - General | 2,196 | 2,844 | 3,456 | 4,104 | 4,716 |
| - Heating | 23,058 | 29,862 | 36,288 | 43,092 | 49,518 |
| Industrial - Firm | 118,000 | 148,627 | 170,255 | 179,255 | 179,255 |
| Co. Use & Unaccounted For | 5,942 | 8,594 | 10,504 | 11,816 | 13,128 |
| Total Purchase Requirements | <u>303,056</u> | <u>438,291</u> | <u>535,706</u> | <u>602,620</u> | <u>669,542</u> |

| | | | | | |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 21 | 51 | 69 | 84 | 103 |
| - Heating | 679 | 1,699 | 2,135 | 2,577 | 3,024 |
| Commercial - General | 6 | 8 | 9 | 11 | 13 |
| - Heating | 192 | 249 | 302 | 359 | 412 |
| Industrial - Firm | 557 | 702 | 846 | 846 | 846 |
| Co. Use & Unaccounted For | 29 | 54 | 67 | 78 | 88 |
| Total Purchase Requirements | <u>1,484</u> | <u>2,763</u> | <u>3,428</u> | <u>3,955</u> | <u>4,486</u> |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

ENGLEHART, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 36 | 59 | 72 | 85 | 98 |
| - Heating | 73 | 118 | 145 | 172 | 199 |
| Commercial - General | 9 | 11 | 14 | 16 | 19 |
| - Heating | 9 | 11 | 14 | 16 | 19 |
| Total Customers | 127 | 199 | 245 | 289 | 335 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 956 | 1,589 | 2,019 | 2,422 | 2,818 |
| - Heating | 11,395 | 18,420 | 22,635 | 26,849 | 31,064 |
| Commercial - General | 324 | 396 | 504 | 576 | 684 |
| - Heating | 3,276 | 4,004 | 5,096 | 5,824 | 6,916 |
| Co. Use & Unaccounted For | 319 | 488 | 605 | 713 | 830 |
| Total Purchase Requirements | 16,270 | 24,897 | 30,859 | 36,384 | 42,312 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 2 | 6 | 8 | 10 | 12 |
| - Heating | 57 | 140 | 177 | 213 | 250 |
| Commercial - General | 1 | 1 | 1 | 2 | 2 |
| - Heating | 28 | 35 | 44 | 50 | 60 |
| Co. Use & Unaccounted For | 2 | 4 | 5 | 6 | 6 |
| Total Purchase Requirements | 90 | 186 | 235 | 281 | 330 |

ESTIMATE OF GAS REQUIREMENTS
NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED
NEW LISKEARD, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 89 | 144 | 176 | 209 | 241 |
| - Heating | 184 | 296 | 364 | 432 | 501 |
| Commercial - General | 30 | 39 | 48 | 57 | 65 |
| - Heating | 30 | 39 | 48 | 57 | 65 |
| Industrial - Firm | 1 | 1 | 1 | 1 | 1 |
| Total Customers | <u>334</u> | <u>519</u> | <u>637</u> | <u>756</u> | <u>873</u> |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 2,347 | 3,901 | 4,956 | 5,944 | 6,918 |
| - Heating | 27,400 | 44,075 | 54,108 | 64,279 | 74,590 |
| Commercial - General | 1,332 | 1,728 | 2,124 | 2,520 | 2,880 |
| - Heating | 12,839 | 16,656 | 20,473 | 24,290 | 27,760 |
| Industrial - Firm | 9,875 | 9,875 | 9,875 | 9,875 | 9,875 |
| Co. Use & Unaccounted For | <u>1,076</u> | <u>1,525</u> | <u>1,831</u> | <u>2,138</u> | <u>2,440</u> |
| Total Purchase Requirements | <u>54,869</u> | <u>77,760</u> | <u>93,367</u> | <u>109,046</u> | <u>124,463</u> |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 6 | 15 | 20 | 25 | 30 |
| - Heating | 142 | 355 | 445 | 536 | 630 |
| Commercial - General | 4 | 5 | 6 | 7 | 8 |
| - Heating | 116 | 151 | 186 | 220 | 252 |
| Industrial - Firm | 41 | 41 | 41 | 41 | 41 |
| Co. Use & Unaccounted For | <u>6</u> | <u>11</u> | <u>14</u> | <u>17</u> | <u>19</u> |
| Total Purchase Requirements | <u>315</u> | <u>578</u> | <u>712</u> | <u>846</u> | <u>980</u> |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

HAILEYBURY, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 49 | 80 | 99 | 116 | 134 |
| - Heating | 101 | 163 | 200 | 238 | 276 |
| Commercial - General | 17 | 22 | 26 | 31 | 36 |
| - Heating | 17 | 22 | 26 | 31 | 36 |
| Total Customers | 184 | 287 | 351 | 416 | 482 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 1,304 | 2,167 | 2,753 | 3,302 | 3,844 |
| - Heating | 15,084 | 24,265 | 29,789 | 35,388 | 41,064 |
| Commercial - General | 432 | 576 | 684 | 828 | 936 |
| - Heating | 4,164 | 5,552 | 6,593 | 7,981 | 9,022 |
| Co. Use & Unaccounted For | 420 | 651 | 796 | 950 | 1,097 |
| Total Purchase Requirements | 21,404 | 33,211 | 40,615 | 48,449 | 55,963 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 3 | 8 | 11 | 14 | 17 |
| - Heating | 79 | 196 | 245 | 296 | 347 |
| Commercial - General | 1 | 2 | 2 | 2 | 2 |
| - Heating | 38 | 50 | 60 | 72 | 82 |
| Co. Use & Unaccounted For | 2 | 5 | 6 | 8 | 9 |
| Total Purchase Requirements | 123 | 261 | 324 | 392 | 457 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

COBALT, ONTARIO

| NUMBER OF CUSTOMERS | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------|---------|---------|---------|---------|---------|
| Residential - General | 53 | 86 | 105 | 124 | 143 |
| - Heating | 110 | 178 | 218 | 259 | 301 |
| Commercial - General | 18 | 23 | 29 | 34 | 39 |
| - Heating | 18 | 23 | 29 | 34 | 39 |
| Industrial - Firm | 1 | 1 | 2 | 2 | 2 |
| Total Customers | 200 | 311 | 383 | 453 | 524 |

| ANNUAL SALES - MCF | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------------|---------|---------|---------|---------|---------|
| Residential - General | 1,391 | 2,312 | 2,937 | 3,522 | 4,100 |
| - Heating | 16,440 | 26,445 | 32,465 | 38,568 | 44,752 |
| Commercial - General | 576 | 720 | 900 | 1,044 | 1,224 |
| - Heating | 5,552 | 6,940 | 8,675 | 10,063 | 11,798 |
| Industrial - Firm | 23,686 | 23,686 | 52,315 | 52,315 | 52,315 |
| Co. Use & Unaccounted For | 953 | 1,202 | 1,946 | 2,110 | 2,284 |
| Total Purchase Requirements | 48,598 | 61,305 | 99,238 | 107,622 | 116,473 |

| MAXIMUM DAY SALES - MCF | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------------|---------|---------|---------|---------|---------|
| Residential - General | 4 | 9 | 12 | 15 | 18 |
| - Heating | 85 | 213 | 267 | 322 | 378 |
| Commercial - General | 2 | 2 | 2 | 3 | 3 |
| - Heating | 50 | 63 | 79 | 91 | 107 |
| Industrial - Firm | 97 | 97 | 215 | 215 | 215 |
| Co. Use & Unaccounted For | 5 | 8 | 12 | 13 | 14 |
| Total Purchase Requirements | 243 | 392 | 587 | 659 | 735 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

NORTH BAY, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 418 | 679 | 835 | 984 | 1,136 |
| - Heating | 926 | 1,556 | 1,695 | 2,338 | 2,752 |
| Commercial - General | 67 | 86 | 105 | 124 | 143 |
| - Heating | 67 | 86 | 105 | 124 | 143 |
| Industrial - Firm | 2 | 3 | 4 | 4 | 4 |
| Total Customers | 1,480 | 2,410 | 2,744 | 3,574 | 4,178 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 11,053 | 18,347 | 23,311 | 27,958 | 32,542 |
| - Heating | 127,510 | 214,093 | 233,402 | 321,943 | 378,950 |
| Commercial - General | 2,412 | 3,096 | 3,780 | 4,464 | 5,148 |
| - Heating | 21,507 | 27,606 | 33,705 | 39,804 | 45,903 |
| Industrial - Firm | 23,009 | 34,514 | 46,019 | 46,019 | 48,019 |
| Co. Use & Unaccounted For | 3,710 | 5,953 | 6,804 | 8,804 | 10,211 |
| Total Purchase Requirements | 189,201 | 303,609 | 347,021 | 448,992 | 520,773 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 20 | 50 | 67 | 82 | 101 |
| - Heating | 675 | 1,687 | 2,280 | 2,731 | 3,232 |
| Commercial - General | 7 | 8 | 10 | 12 | 14 |
| - Heating | 199 | 256 | 312 | 369 | 425 |
| Industrial - Firm | 99 | 149 | 198 | 198 | 206 |
| Co. Use & Unaccounted For | 20 | 43 | 57 | 68 | 80 |
| Total Purchase Requirements | 1,020 | 2,193 | 2,924 | 3,460 | 4,058 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

SUDBURY, ONTARIO

| | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--------------------------------|---------|---------|---------|-----------|-----------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 1,001 | 1,626 | 1,999 | 2,354 | 2,718 |
| - Heating | 2,221 | 3,723 | 4,688 | 5,562 | 6,525 |
| Commercial - General | 144 | 187 | 231 | 276 | 323 |
| - Heating | 144 | 187 | 231 | 276 | 323 |
| Industrial - Firm | 4 | 5 | 6 | 6 | 6 |
| Total Customers | 3,514 | 5,728 | 7,155 | 8,474 | 9,895 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 26,457 | 43,918 | 55,800 | 66,922 | 77,896 |
| - Heating | 316,257 | 529,750 | 667,571 | 792,029 | 929,160 |
| Commercial - General | 5,184 | 6,732 | 8,316 | 9,936 | 11,628 |
| - Heating | 47,808 | 62,084 | 76,692 | 91,632 | 107,236 |
| Industrial - Firm | 125,000 | 138,758 | 155,415 | 155,415 | 155,415 |
| Co. Use & Unaccounted For | 10,414 | 15,625 | 19,276 | 22,319 | 25,626 |
| Total Purchase Requirements | 531,120 | 796,867 | 983,070 | 1,138,253 | 1,306,961 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 48 | 120 | 160 | 198 | 240 |
| - Heating | 1,561 | 3,903 | 5,254 | 6,278 | 7,406 |
| Commercial - General | 14 | 18 | 23 | 27 | 32 |
| - Heating | 413 | 537 | 663 | 792 | 927 |
| Industrial - Firm | 314 | 348 | 390 | 390 | 390 |
| Co. Use & Unaccounted For | 47 | 99 | 130 | 154 | 180 |
| Total Purchase Requirements | 2,397 | 5,025 | 6,620 | 7,839 | 9,175 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

STURGEON FALLS, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 42 | 82 | 122 | 155 | 187 |
| - Heating | 264 | 429 | 512 | 660 | 733 |
| Commercial - General | 44 | 56 | 69 | 81 | 94 |
| - Heating | 44 | 56 | 69 | 81 | 94 |
| Total Customers | 394 | 623 | 772 | 977 | 1,108 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 1,346 | 2,718 | 4,113 | 5,281 | 6,420 |
| - Heating | 39,142 | 63,616 | 75,928 | 97,837 | 108,695 |
| Commercial - General | 1,584 | 2,016 | 2,484 | 2,916 | 3,384 |
| - Heating | 14,256 | 18,144 | 22,356 | 26,244 | 30,456 |
| Co. Use & Unaccounted For | 1,126 | 1,730 | 2,097 | 2,646 | 2,979 |
| Total Purchase Requirements | 57,454 | 88,224 | 106,978 | 134,924 | 151,934 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 4 | 11 | 17 | 22 | 28 |
| - Heating | 264 | 605 | 807 | 898 | 970 |
| Commercial - General | 4 | 6 | 7 | 8 | 9 |
| - Heating | 131 | 167 | 205 | 241 | 280 |
| Co. Use & Unaccounted For | 8 | 16 | 21 | 23 | 26 |
| Total Purchase Requirements | 411 | 805 | 1,057 | 1,192 | 1,313 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

COPPER CLIFF, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 32 | 54 | 83 | 108 | 137 |
| - Heating | 176 | 230 | 297 | 324 | 351 |
| Commercial - General | 2 | 3 | 4 | 4 | 4 |
| - Heating | 2 | 3 | 4 | 4 | 4 |
| Total Customers | 212 | 290 | 388 | 440 | 496 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 1,020 | 1,788 | 2,784 | 3,672 | 4,692 |
| - Heating | 26,741 | 34,945 | 45,125 | 49,227 | 53,330 |
| Commercial - General | 672 | 108 | 144 | 144 | 144 |
| - Heating | 664 | 996 | 1,328 | 1,328 | 1,328 |
| Co. Use & Unaccounted For | 570 | 757 | 988 | 1,087 | 1,190 |
| Total Purchase Requirements | 29,667 | 38,594 | 50,369 | 55,458 | 60,684 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 7 | 12 | 16 | 21 | 27 |
| - Heating | 312 | 381 | 416 | 451 | 485 |
| Commercial - General | 1 | 1 | 1 | 1 | 1 |
| - Heating | 6 | 10 | 13 | 13 | 13 |
| Co. Use & Unaccounted For | 6 | 8 | 9 | 10 | 11 |
| Total Purchase Requirements | 332 | 412 | 455 | 496 | 537 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

LIVELY, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 34 | 61 | 96 | 130 | 170 |
| - Heating | 194 | 258 | 347 | 391 | 439 |
| Commercial - General | 3 | 4 | 4 | 5 | 6 |
| - Heating | 3 | 4 | 4 | 5 | 6 |
| Total Customers | 234 | 327 | 451 | 531 | 621 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 1,092 | 2,016 | 3,288 | 4,428 | 5,832 |
| - Heating | 29,476 | 39,199 | 52,722 | 59,407 | 66,700 |
| Commercial - General | 108 | 144 | 144 | 180 | 216 |
| - Heating | 996 | 1,328 | 1,328 | 1,666 | 1,992 |
| Co. Use & Unaccounted For | 633 | 854 | 1,050 | 1,314 | 1,495 |
| Total Purchase Requirements | 32,305 | 43,541 | 58,532 | 66,995 | 76,235 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 8 | 13 | 19 | 27 | 35 |
| - Heating | 338 | 428 | 514 | 576 | 642 |
| Commercial - General | 1 | 1 | 1 | 1 | 1 |
| - Heating | 8 | 11 | 11 | 14 | 17 |
| Co. Use & Unaccounted For | 7 | 9 | 11 | 12 | 14 |
| Total Purchase Requirements | 362 | 462 | 556 | 630 | 709 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

NORTHERN ONTARIO ZONE

LARGE INDUSTRIAL CUSTOMERS

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|---|----------------|----------------|----------------|----------------|----------------|
| TOTAL POTENTIAL ANNUAL GAS REQUIREMENTS - MCF | | | | | |
| Spruce Falls Pulp & Paper Co. | 2,840,000 | 2,840,000 | 2,840,000 | 2,840,000 | 2,840,000 |
| Abitibi Pulp & Paper Co. - Iroquois Falls | 2,414,000 | 2,414,000 | 2,414,000 | 2,414,000 | 2,414,000 |
| - Smooth Rock Falls | 994,000 | 994,000 | 994,000 | 994,000 | 994,000 |
| - Sturgeon Falls | 1,136,000 | 1,136,000 | 1,136,000 | 1,136,000 | 1,136,000 |
| International Nickle Co. - Present Plant | 3,038,670 | 4,287,900 | 5,435,800 | 5,435,800 | 5,435,800 |
| - Sulphur Plant | - | - | 4,653,700 | 6,205,000 | 6,205,000 |
| Total | 10,422,670 | 11,671,900 | 17,473,500 | 19,024,800 | 19,024,800 |

| | |
|--|--------|
| TOTAL POTENTIAL MAXIMUM DAY GAS REQUIREMENTS - MCF | |
| Spruce Falls Pulp & Paper Co. | 11,100 |
| Abitibi Pulp & Paper Co. - Iroquois Falls | 9,600 |
| - Smooth Rock Falls | 3,000 |
| - Sturgeon Falls | 3,500 |
| International Nickle Co. - Present Plant | 9,000 |
| - Sulphur Plant | - |
| Total | 36,200 |

| | |
|----------------------------------|-----------|
| ESTIMATED ANNUAL GAS SALES - MCF | |
| Firm | 1,460,000 |
| Interruptible | 5,099,260 |
| Seasonal | 2,300,000 |
| Total | 8,859,260 |

| | |
|--|----------|
| ESTIMATED MAXIMUM DAY (PIPELINE) GAS SALES - MCF | |
| (Purchased From Trans-Canada - Industrial Firm Rate) | 16,492 |
| (Purchased From Trans-Canada - General Firm Rate) 1/ | (4,000) |
| | (12,492) |

1/ Available under General Firm Contract Demand.

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

BARRIE, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 136 | 269 | 403 | 517 | 626 |
| - Heating | 857 | 1,402 | 1,687 | 2,193 | 2,457 |
| Commercial - General | 140 | 180 | 220 | 260 | 300 |
| - Heating | 140 | 180 | 220 | 260 | 300 |
| Total Customers | <u>1,273</u> | <u>2,031</u> | <u>2,530</u> | <u>3,230</u> | <u>3,683</u> |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 4,355 | 8,886 | 13,554 | 17,566 | 21,484 |
| - Heating | 101,088 | 165,466 | 199,091 | 258,772 | 289,893 |
| Commercial - General | 5,040 | 6,480 | 7,920 | 9,360 | 10,800 |
| - Heating | 36,120 | 46,440 | 56,760 | 67,080 | 77,400 |
| Co. Use & Unaccounted For | 2,932 | 4,545 | 5,546 | 7,055 | 7,992 |
| Total Purchase Requirements | <u>149,535</u> | <u>231,817</u> | <u>282,871</u> | <u>359,833</u> | <u>407,569</u> |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 13 | 36 | 54 | 71 | 91 |
| - Heating | 755 | 1,749 | 2,348 | 2,635 | 2,868 |
| Commercial - General | 14 | 18 | 22 | 26 | 30 |
| - Heating | 367 | 472 | 577 | 682 | 787 |
| Co. Use & Unaccounted For | 23 | 46 | 60 | 68 | 75 |
| Total Purchase Requirements | <u>1,172</u> | <u>2,321</u> | <u>3,061</u> | <u>3,482</u> | <u>3,851</u> |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

ORILLIA, ONTARIO

| | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------|---------|---------|---------|---------|---------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 106 | 212 | 320 | 413 | 503 |
| - Heating | 672 | 1,107 | 1,340 | 1,752 | 1,972 |
| Commercial - General | 105 | 135 | 165 | 195 | 225 |
| - Heating | 105 | 135 | 165 | 195 | 225 |
| Total Customers | 988 | 1,589 | 1,990 | 2,555 | 2,925 |

| | | | | | |
|-----------------------------|---------|---------|---------|---------|---------|
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 3,410 | 7,003 | 10,763 | 14,032 | 17,253 |
| - Heating | 89,661 | 147,652 | 178,767 | 233,716 | 263,059 |
| Commercial - General | 3,780 | 4,860 | 5,940 | 7,020 | 8,100 |
| - Heating | 32,865 | 42,225 | 51,645 | 61,035 | 70,425 |
| Co. Use & Unacct. For | 2,594 | 4,035 | 4,942 | 6,316 | 7,177 |
| Total Purchase Requirements | 132,310 | 205,775 | 252,057 | 322,119 | 366,014 |

| | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 10 | 29 | 42 | 57 | 73 |
| - Heating | 671 | 1,564 | 2,113 | 2,383 | 2,609 |
| Commercial - General | 11 | 14 | 17 | 20 | 23 |
| - Heating | 312 | 402 | 491 | 580 | 669 |
| Co. Use & Unacct. For | 20 | 40 | 53 | 61 | 67 |
| Total Purchase Requirements | 1,024 | 2,049 | 2,716 | 3,101 | 3,441 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

GRAVENHURST, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 25 | 50 | 76 | 98 | 120 |
| - Heating | 158 | 261 | 318 | 418 | 471 |
| Commercial - General | 26 | 34 | 41 | 49 | 56 |
| - Heating | 26 | 34 | 41 | 49 | 56 |
| Total Customers | 235 | 379 | 476 | 614 | 703 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 809 | 1,661 | 2,562 | 3,338 | 4,121 |
| - Heating | 21,877 | 36,093 | 44,027 | 57,761 | 65,076 |
| Commercial - General | 936 | 864 | 1,476 | 1,764 | 2,016 |
| - Heating | 8,138 | 10,642 | 12,833 | 15,337 | 17,528 |
| Co. Use & Unaccounted For | 635 | 985 | 1,218 | 1,564 | 1,775 |
| Total Purchase Requirements | 32,395 | 50,245 | 62,116 | 79,764 | 90,516 |
| MAXIMUM DAY - MCF | | | | | |
| Residential - General | 2 | 7 | 10 | 13 | 17 |
| - Heating | 158 | 369 | 502 | 568 | 624 |
| Commercial - General | 3 | 3 | 4 | 5 | 6 |
| - Heating | 77 | 101 | 122 | 146 | 166 |
| Co. Use & Unaccounted For | 5 | 10 | 13 | 15 | 16 |
| Total Purchase Requirements | 245 | 490 | 651 | 747 | 829 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

BRACEBRIDGE, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 23 | 45 | 69 | 87 | 106 |
| - Heating | 146 | 238 | 286 | 370 | 414 |
| Commercial - General | 24 | 31 | 38 | 45 | 52 |
| - Heating | 24 | 31 | 38 | 45 | 52 |
| Total Customers | 217 | 345 | 431 | 547 | 624 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 748 | 1,500 | 2,301 | 2,964 | 3,616 |
| - Heating | 20,135 | 32,965 | 39,548 | 51,145 | 57,230 |
| Commercial - General | 864 | 1,116 | 1,368 | 1,620 | 1,872 |
| - Heating | 7,512 | 9,703 | 11,894 | 14,085 | 16,276 |
| Co. Use & Unaccounted For | 585 | 906 | 1,102 | 1,396 | 1,580 |
| Total Purchase Requirements | 29,844 | 46,190 | 56,213 | 71,210 | 80,574 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 2 | 6 | 9 | 12 | 15 |
| - Heating | 146 | 336 | 450 | 504 | 547 |
| Commercial - General | 2 | 3 | 4 | 5 | 5 |
| - Heating | 71 | 92 | 113 | 134 | 156 |
| Co. Use & Unaccounted For | 1 | 9 | 12 | 13 | 14 |
| Total Purchase Requirements | 222 | 446 | 588 | 668 | 737 |

ESTIMATE OF GAS REQUIREMENTS

NORTHERN ONTARIO NATURAL GAS COMPANY LIMITED

HUNTSVILLE, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 28 | 55 | 82 | 104 | 126 |
| - Heating | 173 | 284 | 340 | 442 | 496 |
| Commercial - General | 28 | 36 | 44 | 52 | 60 |
| - Heating | 28 | 36 | 44 | 52 | 60 |
| Total Customers | 257 | 411 | 510 | 650 | 742 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 884 | 1,798 | 2,742 | 3,541 | 4,333 |
| - Heating | 24,749 | 40,596 | 48,737 | 63,340 | 70,952 |
| Commercial - General | 1,008 | 1,296 | 1,584 | 1,872 | 2,160 |
| - Heating | 8,764 | 11,268 | 13,772 | 16,276 | 18,781 |
| Co. Use & Unaccounted For | 708 | 1,099 | 1,336 | 1,701 | 1,924 |
| Total Purchase Requirements | 36,113 | 56,057 | 68,171 | 86,730 | 98,150 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 3 | 7 | 11 | 14 | 18 |
| - Heating | 173 | 401 | 536 | 602 | 655 |
| Commercial - General | 3 | 4 | 4 | 5 | 6 |
| - Heating | 83 | 107 | 131 | 155 | 179 |
| Co. Use & Unaccounted For | 5 | 10 | 14 | 15 | 17 |
| Total Purchase Requirements | 267 | 529 | 696 | 791 | 875 |

ESTIMATE OF GAS REQUIREMENTS

THE CONSUMERS' GAS COMPANY OF TORONTO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 159,301 | 164,344 | 170,356 | 177,414 | 185,411 |
| - Heating | 73,355 | 90,996 | 109,359 | 127,875 | 147,078 |
| Commercial - General | 8,183 | 8,405 | 8,514 | 8,641 | 8,845 |
| - Heating | 3,750 | 5,480 | 6,930 | 8,500 | 10,220 |
| Industrial - Firm | 3,964 | 4,364 | 4,764 | 5,164 | 5,564 |
| - Interruptible | 25 | 30 | 32 | 40 | 48 |
| Total Customers | 248,578 | 273,619 | 299,955 | 327,634 | 357,166 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 2,102,773 | 2,235,078 | 2,384,984 | 2,572,503 | 2,781,165 |
| - Heating | 6,600,090 | 8,414,822 | 10,258,227 | 12,146,381 | 14,077,542 |
| Commercial - General | 1,022,900 | 1,084,274 | 1,149,326 | 1,218,290 | 1,291,387 |
| - Heating | 945,370 | 1,379,040 | 1,745,400 | 2,147,540 | 2,582,990 |
| Industrial - Firm | 3,924,360 | 4,800,400 | 5,669,160 | 6,506,640 | 7,233,200 |
| - Interruptible | 10,289,801 | 12,651,164 | 14,378,294 | 18,595,239 | 22,814,910 |
| Co. Use & Unaccounted For | 935,570 | 1,148,704 | 1,347,921 | 1,601,473 | 1,854,612 |
| Total Send-Out Requirements | 25,820,864 | 31,713,482 | 36,933,312 | 44,788,066 | 52,635,806 |
| Peak Shaving | 225,264 | 688,482 | 1,254,512 | 1,353,066 | 1,444,506 |
| Total Purchase Requirements | 25,595,600 | 31,025,000 | 35,678,800 | 43,435,000 | 51,191,300 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 8,476 | 9,052 | 9,689 | 10,419 | 11,232 |
| - Heating | 66,664 | 88,026 | 109,195 | 131,231 | 153,450 |
| Commercial - General | 3,918 | 4,302 | 4,555 | 4,828 | 5,118 |
| - Heating | 8,655 | 13,845 | 18,615 | 23,145 | 28,080 |
| Industrial - Firm | 13,441 | 16,441 | 19,416 | 22,285 | 24,774 |
| - Interruptible | - | - | - | - | - |
| Co. Use & Unaccounted For | 5,058 | 6,583 | 8,074 | 9,595 | 11,132 |
| Total Send-Out Requirements | 106,212 | 138,249 | 169,544 | 201,503 | 233,786 |
| Peak Shaving | 23,712 | 38,249 | 54,544 | 61,503 | 68,786 |
| Total Purchase Requirements | 82,500 | 100,000 | 115,000 | 140,000 | 165,000 |

ESTIMATE OF GAS REQUIREMENTS

UNION GAS COMPANY OF CANADA, LIMITED.

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|----------------|----------------|----------------|----------------|----------------|
| ANNUAL SALES - MCF | | | | | |
| Residential | - | 12,000,000 | 12,700,000 | 13,400,000 | 14,100,000 |
| Commercial | - | 2,225,000 | 2,325,000 | 2,425,000 | 2,525,000 |
| Firm Industrial | - | 2,700,000 | 2,750,000 | 2,800,000 | 2,850,000 |
| Total Direct Firm Sales | - | 16,925,000 | 17,775,000 | 18,625,000 | 19,475,000 |
| Total Interruptible Sales | - | 4,085,500 | 4,278,000 | 4,736,000 | 4,794,000 |
| Total Union Direct Sales | - | 21,010,500 | 22,053,000 | 23,361,000 | 24,269,000 |
| Sales to Dominion Natural Gas Co. | - | 3,097,000 | 3,528,000 | 3,785,000 | 3,820,000 |
| Sales to United Gas & Fuel Co. | - | 5,415,000 | 6,329,000 | 7,146,000 | 7,967,000 |
| Sales to Kitchener-Waterloo | - | 755,000 | 973,000 | 1,226,000 | 1,504,000 |
| Sales to Guelph | - | 386,000 | 479,000 | 594,000 | 723,000 |
| Sales to Stratford | - | 207,000 | 281,000 | 352,000 | 426,000 |
| Sales to St. Mary's | - | 43,000 | 59,000 | 74,000 | 89,000 |
| Total Sales to Others | - | 9,903,000 | 11,649,000 | 13,177,000 | 14,529,000 |
| Co. Use & Unaccounted For | - | 1,236,500 | 1,348,000 | 1,462,000 | 1,552,000 |
| Total Annual Gas Requirements | - | 32,150,000 | 35,050,000 | 38,000,000 | 40,350,000 |
| ANNUAL GAS SUPPLY - MCF | | | | | |
| Union Gas Co. Production | - | 3,000,000 | 3,000,000 | 2,800,000 | 2,550,000 |
| Local Purchases | - | 9,650,000 | 9,150,000 | 8,900,000 | 8,500,000 |
| Purchases from Panhandle (November 25, 1944 Contract) | - | 5,500,000 | 5,500,000 | 5,500,000 | 5,500,000 |
| Total Gas Supply Other Than Trans-Canada | - | 18,150,000 | 17,650,000 | 17,200,000 | 16,550,000 |
| Balance of Annual Requirements to come from Trans-Canada | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| Annual Volumes of Excess Gas | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| Total Purchase Requirements | 5,000,000 | 19,000,000 | 22,400,000 | 25,800,000 | 28,800,000 |

ESTIMATE OF GAS REQUIREMENTS

THE GRIMSBY NATURAL GAS COMPANY, LIMITED

GRIMSBY, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| ANNUAL SALES - MCF | | | | | |
| Residential | 87,900 | 96,050 | 104,200 | 112,350 | 120,500 |
| Commercial | 8,744 | 8,924 | 9,074 | 9,508 | 9,658 |
| Industrial Firm | 3,750 | 3,825 | 3,900 | 3,975 | 4,050 |
| Interruptible | 17,500 | 17,900 | 18,300 | 18,700 | 19,200 |
| Co. Use & Unaccounted For | 5,896 | 6,335 | 6,774 | 7,227 | 7,670 |
| Total Gas Requirements | <u>123,790</u> | <u>133,034</u> | <u>142,248</u> | <u>151,760</u> | <u>161,078</u> |
| Peak Shaving | 12,382 | 13,303 | 14,225 | 15,176 | 16,108 |
| Total Purchase Requirements | <u>111,408</u> | <u>119,731</u> | <u>128,023</u> | <u>136,584</u> | <u>144,970</u> |
| MAXIMUM DAY GAS REQUIREMENTS - MCF | 405 | 494 | 587 | 675 | 763 |

ESTIMATE OF GAS REQUIREMENTS

DOMINION NATURAL GAS CO., LIMITED

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| TOTAL ANNUAL REQUIREMENTS - MCF | - | 300,000 | 500,000 | 600,000 | 700,000 | 780,000 |
| MAXIMUM DAY REQUIREMENTS - MCF | - | 2,107 | 3,512 | 4,215 | 4,917 | 4,999 |

ESTIMATE OF GAS REQUIREMENTS

LAKELAND NATURAL GAS LIMITED

BELLEVILLE AND THURLOW TOWNSHIP, ONTARIO

| | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------|---------|---------|---------|---------|---------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 105 | 159 | 198 | 237 | 264 |
| - Heating | 644 | 1,006 | 1,296 | 1,584 | 1,802 |
| Commercial - General | 11 | 17 | 21 | 25 | 28 |
| - Heating | 70 | 110 | 142 | 173 | 199 |
| Industrial - Firm | 3 | 3 | 3 | 3 | 3 |
| - Interruptible | 3 | 5 | 7 | 8 | 8 |
| Total Customers | 836 | 1,300 | 1,667 | 2,030 | 2,304 |

| | | | | | |
|-----------------------------|---------|---------|---------|---------|---------|
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 10,675 | 16,550 | 21,150 | 25,725 | 29,125 |
| - Heating | 96,600 | 150,900 | 194,400 | 237,600 | 270,300 |
| Commercial - General | 15,800 | 16,800 | 41,560 | 42,320 | 64,920 |
| - Heating | 33,700 | 50,150 | 81,400 | 92,650 | 130,250 |
| Industrial - Firm | 5,500 | 5,500 | 5,500 | 5,500 | 5,500 |
| - Interruptible | 27,400 | 83,560 | 111,640 | 198,040 | 198,040 |
| Co. Use & Unaccounted For | 3,794 | 6,470 | 9,113 | 12,037 | 13,963 |
| Total Gas Requirements | 193,469 | 329,930 | 464,763 | 613,872 | 712,098 |
| Peak Shaving | 6,740 | 5,097 | 6,576 | 7,112 | 14,989 |
| Total Purchase Requirements | 186,729 | 324,833 | 458,187 | 606,760 | 697,109 |

| | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 36 | 54 | 71 | 85 | 97 |
| - Heating | 910 | 1,420 | 1,700 | 2,220 | 2,500 |
| Commercial - General | 53 | 56 | 140 | 143 | 217 |
| - Heating | 315 | 470 | 700 | 870 | 1,200 |
| Industrial - Firm | 23 | 23 | 23 | 23 | 23 |
| - Interruptible | 27 | 41 | 57 | 68 | 85 |
| Co. Use & Unaccounted For | 1,364 | 2,064 | 2,691 | 3,409 | 4,122 |
| Total Gas Requirements | 390 | 300 | 400 | 340 | 910 |
| Peak Shaving | 974 | 1,764 | 2,291 | 3,069 | 3,212 |
| Total Purchase Requirements | | | | | |

ESTIMATE OF GAS REQUIREMENTS

LAKELAND NATURAL GAS LIMITED

PORT HOPE, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 41 | 62 | 77 | 92 | 103 |
| - Heating | 252 | 392 | 504 | 616 | 702 |
| Commercial - General | 4 | 6 | 7 | 8 | 10 |
| - Heating | 27 | 41 | 52 | 63 | 71 |
| Industrial - Firm | 2 | 2 | 2 | 2 | 2 |
| - Interruptible | 1 | 3 | 6 | 8 | 8 |
| Total Customers | 327 | 506 | 648 | 789 | 896 |

| | | | | | |
|-----------------------------|---------|---------|---------|---------|---------|
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 4,175 | 6,450 | 8,225 | 10,000 | 11,350 |
| - Heating | 37,800 | 58,800 | 75,600 | 92,400 | 105,300 |
| Commercial - General | 4,640 | 7,000 | 8,740 | 10,480 | 11,720 |
| - Heating | 20,000 | 32,050 | 40,000 | 48,260 | 54,050 |
| Industrial - Firm | 165,000 | 165,000 | 165,000 | 165,000 | 165,000 |
| - Interruptible | 34,720 | 50,920 | 109,240 | 249,640 | 249,640 |
| Co. Use & Unaccounted For | 5,327 | 6,404 | 8,136 | 11,516 | 11,941 |
| Total Gas Requirements | 271,662 | 326,624 | 414,941 | 587,296 | 609,001 |
| Peak Shaving | 6,570 | 5,726 | 7,266 | 7,556 | 6,584 |
| Total Purchase Requirements | 265,092 | 320,898 | 407,675 | 579,740 | 602,417 |

| | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 14 | 22 | 28 | 34 | 37 |
| - Heating | 350 | 555 | 700 | 870 | 900 |
| Commercial - General | 15 | 23 | 29 | 35 | 40 |
| - Heating | 185 | 300 | 350 | 450 | 500 |
| Industrial - Firm | 696 | 696 | 696 | 696 | 696 |
| Co. Use & Unaccounted For | 25 | 32 | 36 | 43 | 47 |
| Total Gas Requirements | 1,285 | 1,628 | 1,839 | 2,128 | 2,220 |
| Peak Shaving | 380 | 337 | 442 | 425 | 400 |
| Total Purchase Requirements | 905 | 1,291 | 1,397 | 1,703 | 1,820 |

ESTIMATE OF GAS REQUIREMENTS

LAKELAND NATURAL GAS LIMITED

TRENTON AND SIDNEY TOWNSHIP

| | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------|---------|---------|---------|---------|---------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 50 | 74 | 93 | 117 | 124 |
| - Heating | 302 | 470 | 608 | 742 | 844 |
| Commercial - General | 5 | 7 | 9 | 11 | 12 |
| - Heating | 30 | 47 | 64 | 79 | 92 |
| Industrial - Firm | 1 | 1 | 1 | 1 | 1 |
| - Interruptible | 3 | 7 | 7 | 11 | 11 |
| Total Customers | 391 | 606 | 782 | 961 | 1,084 |

| | | | | | |
|-----------------------------|---------|---------|---------|---------|---------|
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 5,025 | 7,725 | 9,925 | 12,200 | 13,650 |
| - Heating | 45,300 | 70,500 | 91,200 | 111,300 | 126,600 |
| Commercial - General | 800 | 6,200 | 6,560 | 6,880 | 7,360 |
| - Heating | 7,500 | 17,000 | 25,000 | 32,500 | 49,500 |
| Industrial - Firm | 13,000 | 13,000 | 13,000 | 13,000 | 13,000 |
| - Interruptible | 64,800 | 94,800 | 94,800 | 498,000 | 498,000 |
| Co. Use & Unaccounted For | 2,729 | 4,185 | 4,810 | 13,478 | 14,162 |
| Total Gas Requirements | 139,154 | 213,410 | 245,295 | 687,358 | 722,272 |
| Peak Shaving | 3,525 | 5,097 | 5,096 | 6,223 | 8,559 |
| Total Purchase Requirements | 135,629 | 208,313 | 240,199 | 681,135 | 713,713 |

| | | | | | |
|-----------------------------|-----|-----|-------|-------|-------|
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 17 | 26 | 33 | 41 | 46 |
| - Heating | 425 | 665 | 850 | 1,040 | 1,100 |
| Commercial - General | 3 | 20 | 21 | 22 | 23 |
| - Heating | 70 | 160 | 225 | 300 | 440 |
| Industrial - Firm | 55 | 55 | 55 | 55 | 55 |
| - Interruptible | 12 | 18 | 24 | 31 | 37 |
| Co. Use & Unaccounted For | 582 | 944 | 1,208 | 1,489 | 1,701 |
| Total Gas Requirements | 204 | 300 | 310 | 352 | 520 |
| Peak Shaving | 378 | 644 | 898 | 1,137 | 1,181 |
| Total Purchase Requirements | | | | | |

ESTIMATE OF GAS REQUIREMENTS

LAKELAND NATURAL GAS LIMITED

COBourg, ONTARIO

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 47 | 69 | 87 | 105 | 116 |
| - Heating | 284 | 444 | 572 | 698 | 794 |
| Commercial - General | 3 | 5 | 7 | 8 | 8 |
| - Heating | 24 | 36 | 48 | 60 | 66 |
| Industrial - Firm | - | - | - | - | - |
| - Interruptible | 1 | 2 | 3 | 4 | 4 |
| Total Customers | 359 | 556 | 717 | 875 | 988 |
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 4,725 | 7,275 | 9,325 | 11,350 | 12,825 |
| - Heating | 42,600 | 66,600 | 85,800 | 104,700 | 119,100 |
| Commercial - General | 10,520 | 15,840 | 19,870 | 23,860 | 26,480 |
| - Heating | 21,900 | 33,400 | 42,300 | 51,200 | 56,950 |
| Industrial - Firm | - | - | - | - | - |
| - Interruptible | 86,400 | 155,520 | 177,200 | 181,520 | 181,520 |
| Co. Use & Unaccounted For | 3,323 | 5,573 | 6,690 | 7,453 | 7,937 |
| Total Gas Requirements | 169,468 | 284,208 | 341,185 | 380,083 | 404,812 |
| Peak Shaving | 3,630 | 4,280 | 6,540 | 4,978 | 6,749 |
| Total Purchase Requirements | 165,838 | 279,928 | 334,645 | 375,105 | 398,063 |
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 16 | 24 | 31 | 38 | 46 |
| - Heating | 400 | 620 | 800 | 980 | 1,100 |
| Commercial - General | 35 | 54 | 67 | 80 | 88 |
| - Heating | 205 | 315 | 400 | 480 | 500 |
| Industrial - Firm | - | - | - | - | - |
| - Interruptible | 13 | 20 | 26 | 33 | 37 |
| Co. Use & Unaccounted For | 669 | 1,033 | 1,324 | 1,611 | 1,771 |
| Total Gas Requirements | 210 | 252 | 398 | 280 | 410 |
| Peak Shaving | 459 | 781 | 926 | 1,331 | 1,361 |
| Total Purchase Requirements | | | | | |

ESTIMATE OF GAS REQUIREMENTS

LAKELAND NATURAL GAS LIMITED

COLBURN, BRIGHTON, BATAWA, DERSERONT, NAPANEE,
ONTARIO

| | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------|---------|---------|---------|---------|---------|
| NUMBER OF CUSTOMERS | | | | | |
| Residential - General | 64 | 99 | 121 | 147 | 161 |
| - Heating | 394 | 614 | 788 | 968 | 1,098 |
| Commercial - General | 8 | 12 | 17 | 21 | 20 |
| - Heating | 53 | 82 | 108 | 129 | 146 |
| Industrial - Firm | 1 | 1 | 1 | 1 | 1 |
| - Interruptible | 6 | 6 | 7 | 7 | 7 |
| Total Customers | 526 | 814 | 1,042 | 1,273 | 1,433 |

| | | | | | |
|-----------------------------|---------|---------|---------|---------|---------|
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 6,525 | 10,100 | 12,875 | 15,750 | 17,750 |
| - Heating | 59,100 | 92,100 | 118,200 | 145,200 | 164,700 |
| Commercial - General | 1,280 | 1,960 | 2,600 | 3,160 | 3,600 |
| - Heating | 21,750 | 33,150 | 44,750 | 50,600 | 54,850 |
| Industrial - Firm | 8,400 | 8,400 | 8,400 | 8,400 | 8,400 |
| - Interruptible | 21,550 | 21,550 | 154,550 | 154,550 | 154,550 |
| Co. Use & Unaccounted For | 2,372 | 3,345 | 6,828 | 7,553 | 8,077 |
| Total Gas Requirements | 120,977 | 170,605 | 348,203 | 385,213 | 411,927 |
| Peak Shaving | 3,075 | 3,400 | 8,236 | 7,575 | 9,827 |
| Total Purchase Requirements | 117,902 | 167,205 | 339,967 | 377,638 | 402,100 |

| | | | | | |
|-----------------------------|-----|-------|-------|-------|-------|
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 21 | 35 | 43 | 53 | 60 |
| - Heating | 550 | 866 | 1,100 | 1,351 | 1,535 |
| Commercial - General | 4 | 7 | 9 | 10 | 13 |
| - Heating | 200 | 310 | 410 | 470 | 510 |
| Industrial - Firm | 35 | 35 | 35 | 35 | 35 |
| Co. Use & Unaccounted For | 17 | 23 | 33 | 39 | 49 |
| Total Gas Requirements | 827 | 1,276 | 1,630 | 1,958 | 2,202 |
| Peak Shaving | 178 | 200 | 501 | 426 | 597 |
| Total Purchase Requirements | 649 | 1,076 | 1,129 | 1,532 | 1,605 |

ESTIMATE OF GAS REQUIREMENTS

LAKELAND NATURAL GAS LIMITED

ERNESTOWN TOWNSHIP, KINGSTON TOWNSHIP, PITTSBURG TOWNSHIP, AUGUSTA TOWNSHIP
 PRESCOTT, CARDINAL, IROQUOIS, MORRISBURG,
 ONTARIO

| NUMBER OF CUSTOMERS | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------|---------|---------|---------|---------|---------|
| Residential - General | 57 | 86 | 108 | 129 | 143 |
| - Heating | 350 | 546 | 702 | 860 | 978 |
| Commercial - General | 7 | 10 | 12 | 16 | 17 |
| - Heating | 43 | 71 | 92 | 115 | 129 |
| Industrial - Firm | 1 | 1 | 1 | 1 | 1 |
| - Interruptible | - | 5 | 5 | 5 | 5 |
| Total Customers | 458 | 719 | 920 | 1,126 | 1,273 |

| | | | | | |
|-----------------------------|---------|-----------|-----------|-----------|-----------|
| ANNUAL SALES - MCF | | | | | |
| Residential - General | 5,800 | 8,975 | 11,421 | 13,875 | 15,800 |
| - Heating | 52,500 | 81,900 | 105,300 | 129,000 | 146,700 |
| Commercial - General | 1,120 | 1,720 | 2,200 | 2,760 | 3,080 |
| - Heating | 12,000 | 24,000 | 31,000 | 40,500 | 44,000 |
| Industrial - Firm | 9,980 | 9,980 | 9,980 | 9,980 | 9,980 |
| - Interruptible | 446,780 | 899,323 | 899,325 | 899,426 | 899,324 |
| Co. Use & Unaccounted For | 1,628 | 20,466 | 21,156 | 21,856 | 22,325 |
| Total Gas Requirements | 529,808 | 1,046,364 | 1,080,412 | 1,117,397 | 1,141,209 |
| Peak Shaving | 3,460 | 3,400 | 3,286 | 3,556 | 3,292 |
| Total Purchase Requirements | 526,348 | 1,042,964 | 1,077,126 | 1,113,841 | 1,137,917 |

| | | | | | |
|-----------------------------|-----|-------|-------|-------|-------|
| MAXIMUM DAY SALES - MCF | | | | | |
| Residential - General | 19 | 28 | 35 | 42 | 46 |
| - Heating | 495 | 775 | 997 | 1,211 | 1,389 |
| Commercial - General | 3 | 5 | 6 | 8 | 9 |
| - Heating | 162 | 272 | 350 | 440 | 495 |
| Industrial - Firm | 42 | 42 | 42 | 42 | 42 |
| Co. Use & Unaccounted For | 14 | 22 | 29 | 35 | 40 |
| Total Gas Requirements | 735 | 1,144 | 1,459 | 1,778 | 2,021 |
| Peak Shaving | 200 | 200 | 200 | 200 | 200 |
| Total Purchase Requirements | 535 | 944 | 1,259 | 1,578 | 1,821 |

ESTIMATE OF GAS REQUIREMENTS

LAKE SHORE GROUP

BROCKVILLE, CORNWALL & KINGSTON, ONTARIO

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| ANNUAL SALES - MCF | | | | | | |
| Residential - General - Brockville | - | 14,000 | 20,000 | 24,000 | 26,000 | 27,000 |
| Cornwall | - | 26,000 | 40,000 | 56,000 | 66,000 | 74,000 |
| Kingston | - | 58,000 | 78,000 | 94,000 | 104,000 | 110,000 |
| - Heating - Brockville | - | 59,000 | 89,000 | 104,000 | 118,000 | 126,000 |
| Cornwall | - | 104,000 | 178,000 | 234,000 | 281,000 | 311,000 |
| Kingston | - | 98,000 | 385,000 | 474,000 | 518,000 | 548,000 |
| Commercial - General - Brockville | - | 6,000 | 8,000 | 9,000 | 10,000 | 11,000 |
| Cornwall | - | 11,000 | 17,000 | 23,000 | 25,000 | 28,000 |
| Kingston | - | 24,000 | 31,000 | 35,000 | 39,000 | 41,000 |
| - Heating - Brockville | - | 33,000 | 41,000 | 47,000 | 53,000 | 56,000 |
| Cornwall | - | 59,000 | 89,000 | 118,000 | 132,000 | 148,000 |
| Kingston | - | 124,000 | 166,000 | 187,000 | 207,000 | 216,000 |
| Industrial - Firm - Brockville | - | 32,000 | 32,000 | 32,000 | 32,000 | 32,000 |
| Cornwall | - | 8,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| Kingston | - | 140,000 | 140,000 | 140,000 | 140,000 | 140,000 |
| Interruptible - Brockville | - | - | - | - | - | - |
| Cornwall | - | 1,600,000 | 1,600,000 | 1,600,000 | 1,600,000 | 1,600,000 |
| Kingston | - | 485,000 | 485,000 | 485,000 | 485,000 | 485,000 |
| Total Firm Sales - Brockville | - | 144,000 | 190,000 | 216,000 | 239,000 | 252,000 |
| Cornwall | - | 208,000 | 334,000 | 441,000 | 514,000 | 571,000 |
| Kingston | - | 444,000 | 800,000 | 930,000 | 1,008,000 | 1,055,000 |
| Total Firm Sales - Mcf | - | 796,000 | 1,324,000 | 1,587,000 | 1,761,000 | 1,878,000 |
| Total Interruptible Sales - Mcf | - | 2,085,000 | 2,085,000 | 2,085,000 | 2,085,000 | 2,085,000 |
| Co. Use & Unaccounted For - Brockville | - | 4,000 | 6,000 | 7,000 | 7,000 | 7,000 |
| Cornwall | - | 36,000 | 39,000 | 41,000 | 42,000 | 42,000 |
| Kingston | - | 36,000 | 39,000 | 42,000 | 45,000 | 45,000 |
| Total Purchase Requirements - Mcf | - | 2,957,000 | 3,493,000 | 3,762,000 | 3,940,000 | 4,057,000 |
| MAXIMUM DAY SALES - MCF | | | | | | |
| Brockville | - | 913 | 1,240 | 1,423 | 1,590 | 1,683 |
| Cornwall | - | 1,437 | 2,330 | 3,074 | 3,595 | 3,994 |
| Kingston | - | 2,544 | 5,212 | 6,145 | 6,697 | 7,030 |
| Co. Use & Unaccounted For | - | 147 | 263 | 319 | 356 | 381 |
| Total Purchase Requirements - Mcf | - | 5,041 | 9,045 | 10,961 | 12,238 | 13,088 |

ESTIMATE OF GAS REQUIREMENTS

INTERPROVINCIAL UTILITIES, LIMITED

OTTAWA, ONTARIO

| NUMBER OF CUSTOMERS | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------|---------|---------|---------|---------|---------|
| Residential - General | 2,250 | 2,630 | 3,125 | 3,845 | 4,805 |
| - Heating | 1,385 | 3,336 | 5,562 | 8,065 | 10,573 |
| Commercial - General | 541 | 575 | 609 | 647 | 686 |
| - Heating | 48 | 95 | 136 | 172 | 221 |
| Industrial - Firm | 1 | 1 | 1 | 1 | 1 |
| - Seasonal | 1 | 1 | 1 | 1 | 1 |
| - Interruptible | 1 | 1 | 1 | 1 | 1 |
| Total Customers | 4,227 | 6,639 | 9,435 | 12,732 | 16,288 |

ANNUAL SALES - MCF

| | | | | | |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|
| Residential - General | 29,300 | 35,500 | 43,800 | 55,700 | 72,150 |
| - Heating | 72,100 | 310,000 | 583,000 | 894,500 | 1,223,000 |
| Commercial - General | 114,500 | 121,800 | 129,000 | 137,000 | 145,500 |
| - Heating | 60,700 | 113,700 | 179,000 | 241,400 | 310,900 |
| Industrial - Firm | 3,942,000 | 3,942,000 | 3,942,000 | 3,942,000 | 3,942,000 |
| - Seasonal | 915,000 | 915,000 | 915,000 | 915,000 | 915,000 |
| - Interruptible | 3,505,200 | 2,979,791 | 2,453,220 | 2,453,220 | 2,453,220 |
| Co. Use & Unaccounted For | 86,932 | 102,152 | 119,842 | 139,532 | 160,680 |
| Total Gas Requirements | 8,725,732 | 8,519,943 | 8,364,862 | 8,778,352 | 9,222,450 |
| Peak Shaving | 4,427 | 17,220 | 17,850 | 19,698 | 26,355 |
| Total Purchase Requirements | 8,721,305 | 8,502,723 | 8,347,012 | 8,758,054 | 9,196,092 |

MAXIMUM DAY SALES - MCF

| | | | | | |
|-----------------------------|--------|--------|--------|--------|--------|
| Residential - General | 100 | 142 | 169 | 214 | 275 |
| - Heating | 487 | 2,490 | 3,085 | 5,850 | 8,830 |
| Commercial - General | 541 | 575 | 609 | 647 | 686 |
| - Heating | 350 | 605 | 1,103 | 1,615 | 2,166 |
| Industrial - Firm | 12,000 | 12,000 | 12,000 | 12,000 | 12,000 |
| - Seasonal | 194 | 311 | 368 | 536 | 717 |
| Co. Use & Unaccounted For | 13,672 | 16,123 | 17,334 | 20,862 | 24,674 |
| Total Gas Requirements | 233 | 820 | 850 | 938 | 1,255 |
| Peak Shaving | 13,439 | 15,303 | 16,484 | 19,924 | 23,419 |
| Total Purchase Requirements | | | | | |

ESTIMATE OF GAS REQUIREMENTS

QUEBEC NATURAL GAS CORPORATION, LIMITED

MONTREAL, QUEBEC

(PLAN I)

| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|----------------------------|---------|---------|---------|---------|---------|---------|
| NUMBER OF CUSTOMERS | | | | | | |
| Residential - General | - | 233,320 | 240,496 | 249,362 | 260,140 | 272,743 |
| - Heating | - | 19,522 | 38,330 | 58,549 | 79,762 | 98,188 |
| Commercial - General | - | 13,495 | 14,045 | 14,595 | 15,145 | 15,695 |
| - Heating | - | 1,282 | 2,172 | 2,557 | 3,187 | 3,559 |
| Industrial - Firm | - | 41 | 84 | 115 | 117 | 118 |
| - Interruptible | - | 9 | 21 | 27 | 27 | 27 |
| Total | - | 267,669 | 295,148 | 325,205 | 358,378 | 390,330 |

| | | | | | | |
|------------------------------------|---|------------|------------|------------|------------|------------|
| ANNUAL SALES - MCF | | | | | | |
| Residential - General | - | 2,690,348 | 3,091,028 | 3,537,750 | 4,021,542 | 4,564,736 |
| - Heating | - | 1,215,392 | 2,623,282 | 4,326,307 | 6,214,385 | 8,176,484 |
| Commercial - General | - | 1,316,466 | 1,434,084 | 1,555,670 | 1,677,736 | 1,802,916 |
| - Heating | - | 330,222 | 687,395 | 940,332 | 1,141,345 | 1,339,855 |
| Industrial - Firm | - | 1,273,324 | 2,561,348 | 4,948,389 | 5,070,530 | 5,192,762 |
| - Interruptible | - | 7,000,000 | 14,000,000 | 17,000,000 | 18,000,000 | 19,000,000 |
| Co. Use & Unaccounted For | - | 882,495 | 1,557,264 | 1,700,445 | 1,901,344 | 2,109,303 |
| Total Gas Requirements | - | 14,708,247 | 25,934,401 | 34,008,893 | 38,026,882 | 42,186,056 |
| Peak Shaving | - | - | 16,000 | 57,000 | 181,000 | 674,000 |
| Total Purchase Requirements | - | 14,708,247 | 25,938,401 | 33,951,893 | 37,845,882 | 41,512,056 |

| | | | | | | |
|------------------------------------|---|--------|--------|--------|---------|---------|
| MAXIMUM DAY SALES - MCF | | | | | | |
| Residential - General | - | 8,579 | 9,870 | 11,329 | 12,926 | 14,661 |
| - Heating | - | 6,157 | 18,151 | 34,316 | 52,209 | 72,081 |
| Commercial - General | - | 4,621 | 5,057 | 5,508 | 5,961 | 6,416 |
| - Heating | - | 1,500 | 5,104 | 8,643 | 10,163 | 12,664 |
| Industrial - Firm | - | - | 9,934 | 20,372 | 22,597 | 23,145 |
| - Interruptible | - | 7,343 | - | - | - | - |
| Co. Use & Unaccounted For | - | 1,800 | 3,071 | 4,219 | 5,466 | 6,788 |
| Total Gas Requirements | - | 30,000 | 51,187 | 84,387 | 109,322 | 135,755 |
| Peak Shaving | - | - | 5,187 | 12,387 | 21,322 | 33,755 |
| Total Purchase Requirements | - | 30,000 | 46,000 | 72,000 | 88,000 | 102,000 |

ESTIMATE OF GAS REQUIREMENTS

QUEBEC NATURAL GAS CORPORATION, LIMITED

MONTREAL, QUEBEC

(PLAN II)

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| NUMBER OF CUSTOMERS | | | | | | |
| Residential - General | 233,320 | 240,496 | 249,362 | 260,140 | 272,743 | 305,723 |
| - Heating | 19,522 | 38,330 | 58,549 | 79,762 | 98,188 | 119,434 |
| Commercial - General | 13,495 | 14,045 | 14,595 | 15,145 | 15,695 | 16,245 |
| - Heating | 844 | 1,406 | 1,594 | 1,969 | 2,156 | 2,344 |
| Industrial - Firm | 41 | 84 | 115 | 117 | 118 | 119 |
| - Interruptible | 9 | 21 | 27 | 27 | 27 | 27 |
| Total Customers | <u>267,231</u> | <u>294,382</u> | <u>324,242</u> | <u>357,160</u> | <u>388,927</u> | <u>443,892</u> |
| ANNUAL SALES - MCF | | | | | | |
| Residential - General | 2,690,348 | 3,091,028 | 3,537,750 | 4,021,542 | 4,564,736 | 5,116,588 |
| - Heating | 1,215,392 | 2,623,282 | 4,326,307 | 6,214,385 | 8,176,484 | 9,945,290 |
| Commercial - General | 1,316,466 | 1,434,084 | 1,555,670 | 1,677,736 | 1,802,916 | 1,928,796 |
| - Heating | 330,222 | 687,395 | 940,332 | 1,141,345 | 1,339,855 | 1,486,440 |
| Industrial - Firm | 1,273,324 | 2,561,348 | 4,948,389 | 5,070,530 | 5,192,762 | 5,314,812 |
| - Interruptible | 7,000,000 | 14,000,000 | 17,000,000 | 18,000,000 | 19,000,000 | 19,500,000 |
| Co. Use & Unaccounted For | 882,495 | 1,557,264 | 1,700,445 | 1,901,344 | 2,109,303 | 2,278,522 |
| Total Gas Requirements | <u>14,708,247</u> | <u>25,954,401</u> | <u>34,008,893</u> | <u>38,026,882</u> | <u>42,186,056</u> | <u>45,570,448</u> |
| Peak Shaving | - | 16,000 | 57,000 | 181,000 | 674,000 | 1,072,000 |
| Total Purchase Requirements | <u>14,708,247</u> | <u>25,938,401</u> | <u>33,951,893</u> | <u>37,845,882</u> | <u>41,512,056</u> | <u>44,498,448</u> |
| MAXIMUM DAY SALES - MCF | | | | | | |
| Residential - General | 8,579 | 9,870 | 11,329 | 12,926 | 14,661 | 16,571 |
| - Heating | 6,157 | 18,151 | 34,316 | 52,209 | 72,081 | 91,448 |
| Commercial - General | 4,621 | 5,057 | 5,508 | 5,961 | 6,416 | 6,870 |
| - Heating | 1,500 | 5,104 | 8,643 | 10,163 | 12,664 | 14,133 |
| Industrial - Firm | 7,343 | 9,934 | 20,372 | 22,597 | 23,145 | 23,692 |
| - Interruptible | - | - | - | - | - | - |
| Co. Use & Unaccounted For | 1,800 | 3,071 | 4,219 | 5,466 | 6,788 | 8,037 |
| Total Gas Requirements | <u>30,000</u> | <u>51,187</u> | <u>84,387</u> | <u>109,322</u> | <u>135,755</u> | <u>160,751</u> |
| Peak Shaving | - | 5,187 | 12,387 | 21,322 | 33,755 | 48,751 |
| Total Purchase Requirements | <u>30,000</u> | <u>46,000</u> | <u>72,000</u> | <u>88,000</u> | <u>102,000</u> | <u>112,000</u> |

HISTORICAL SALES DATA
WINNIPEG & CENTRAL GAS COMPANY
WINNIPEG, MANITOBA

| | YEAR ENDING DECEMBER 31 | | |
|-------------------------------|-------------------------|------------------|------------------|
| | <u>1953</u> | <u>1954</u> | <u>1955</u> |
| NUMBER OF CUSTOMERS | | | |
| Residential - General | 13,828 | 13,184 | 13,374 |
| - Heating | 155 | 165 | 190 |
| Commercial | 854 | 866 | 882 |
| Industrial | <u>634</u> | <u>639</u> | <u>638</u> |
| Total | <u>15,471</u> | <u>14,854</u> | <u>15,084</u> |
| ANNUAL SALES - THERMS | | | |
| Residential - General | 1,042,185 | 1,084,739 | 1,119,527 |
| - Heating | 352,910 | 297,830 | 262,619 |
| Commercial | 1,171,812 | 1,155,502 | 1,161,173 |
| Industrial | <u>1,123,280</u> | <u>1,173,831</u> | <u>1,319,207</u> |
| Total | <u>3,690,187</u> | <u>3,711,902</u> | <u>3,862,526</u> |
| MAXIMUM DAY SEND-OUT - THERMS | <u>15,336</u> | <u>15,157</u> | <u>15,173</u> |

HISTORICAL SALES DATA

THE CONSUMERS' GAS COMPANY OF TORONTO

TORONTO, ONTARIO

| | YEAR ENDING SEPTEMBER 30 | | |
|-------------------------------|--------------------------|-------------------|-------------------|
| | <u>1953</u> | <u>1954</u> | <u>1955</u> |
| NUMBER OF CUSTOMERS | | | |
| Residential | 154,545 | 150,701 | 148,200 |
| Commercial | 5,157 | 5,126 | 5,314 |
| Industrial | 1,956 | 1,893 | 1,864 |
| Total | <u>161,658</u> | <u>157,720</u> | <u>155,378</u> |
| ANNUAL SALES - THERMS | | | |
| Residential | 23,306,200 | 23,165,610 | 24,979,560 |
| Commercial | 5,493,580 | 5,644,150 | 6,288,660 |
| Industrial | <u>7,123,980</u> | <u>7,029,570</u> | <u>8,103,200</u> |
| Total | <u>35,923,760</u> | <u>35,839,330</u> | <u>39,371,420</u> |
| MAXIMUM DAY SEND-OUT - THERMS | <u>148,370</u> | <u>160,100</u> | <u>201,090</u> |

HISTORICAL SALES DATA

PROVINCIAL GAS COMPANY

TORONTO, ONTARIO

| | YEAR ENDING DECEMBER 31 | | |
|-------------------------------|-------------------------|-------------------|-------------------|
| | <u>1953</u> | <u>1954</u> | <u>1955</u> |
| NUMBER OF CUSTOMERS | | | |
| Residential | 16,216 | 16,585 | 17,915 |
| Commercial | 549 | 665 | 580 |
| Industrial | 39 | 40 | 38 |
| Total | <u>16,804</u> | <u>17,290</u> | <u>18,533</u> |
| ANNUAL SALES - THERMS | | | |
| Residential | 8,655,980 | 10,086,850 | 11,818,830 |
| Commercial | 911,270 | 1,005,760 | 1,057,960 |
| Industrial | <u>838,750</u> | <u>1,120,870</u> | <u>1,452,850</u> |
| Total | <u>10,406,000</u> | <u>12,213,480</u> | <u>14,329,640</u> |
| MAXIMUM DAY SEND-CUT - THERMS | <u>51,880</u> | <u>67,350</u> | <u>110,200</u> |

HISTORICAL SALES DATA

UNION GAS COMPANY OF CANADA, LIMITED

| | YEAR ENDING MARCH 31 | | |
|-------------------------------|----------------------|--------------------|--------------------|
| | <u>1954</u> | <u>1955</u> | <u>1956</u> |
| NUMBER OF CUSTOMERS | | | |
| Residential | 75,987 | 80,180 | 84,153 |
| Commercial | 8,083 | 8,451 | 8,893 |
| Industrial | <u>560</u> | <u>560</u> | <u>546</u> |
| Total | <u>84,630</u> | <u>89,191</u> | <u>93,592</u> |
| ANNUAL SALES - THERMS | | | |
| Residential | 59,209,700 | 70,660,950 | 79,758,050 |
| Commercial | 12,820,590 | 14,834,190 | 17,072,030 |
| Industrial | <u>17,084,250</u> | <u>15,698,480</u> | <u>22,124,240</u> |
| Total | <u>89,114,540</u> | <u>101,193,620</u> | <u>118,954,320</u> |
| MAXIMUM DAY SEND-OUT - THERMS | <u>699,850</u> | <u>829,350</u> | <u>948,460</u> |

HISTORICAL SALES DATA
INTERPROVINCIAL UTILITIES, LTD.
OTTAWA, ONTARIO

| | YEAR ENDING DECEMBER 31 | | |
|-------------------------------|-------------------------|------------------|------------------|
| | <u>1953</u> | <u>1954</u> | <u>1955</u> |
| NUMBER OF CUSTOMERS | | | |
| Residential | 2,991 | 2,701 | 2,437 |
| Commercial & Industrial | <u>411</u> | <u>413</u> | <u>415</u> |
| Total | <u>3,402</u> | <u>3,114</u> | <u>2,852</u> |
| ANNUAL SALES - THERMS | | | |
| Residential | 377,500 | 342,855 | 312,260 |
| Commercial & Industrial | <u>791,505</u> | <u>833,765</u> | <u>910,000</u> |
| Total | <u>1,169,005</u> | <u>1,176,620</u> | <u>1,222,260</u> |
| MAXIMUM DAY SEND-OUT - THERMS | <u>5,365</u> | <u>5,510</u> | <u>6,215</u> |

QUEBEC NATURAL GAS CORPORATION

HISTORICAL SALES DATA

| | YEAR ENDING DECEMBER 31 | | |
|-------------------------------|-------------------------|-------------------|-------------------|
| | <u>1953</u> | <u>1954</u> | <u>1955</u> |
| CUSTOMERS | | | |
| Residential | 234,683 | 234,959 | 234,518 |
| Commercial & Small Industrial | <u>14,182</u> | <u>14,141</u> | <u>14,032</u> |
| Total | <u>248,865</u> | <u>249,100</u> | <u>248,550</u> |
| ANNUAL SALES - THERMS | | | |
| Residential | 24,176,570 | 24,846,230 | 24,475,360 |
| Commercial & Small Industrial | <u>12,295,010</u> | <u>12,942,880</u> | <u>13,429,850</u> |
| Total | <u>36,471,580</u> | <u>37,789,110</u> | <u>37,905,210</u> |
| MAXIMUM DAY SEND-OUT - THERMS | 131,470 | 135,510 | 156,680 |

CLIMATOLOGICAL DATA

| | <u>Annual</u> <u>Degree Day Deficiency</u> | <u>Maximum Day</u> <u>Degree Day Deficiency</u> |
|-------------------|---|--|
| Manitoba | | |
| Brandon | 11,114 | 90 |
| Winnipeg | 11,114 | 90 |
| Ontario | | |
| Kenora | 11,232 | 95 |
| Dryden | 11,232 | 95 |
| Port Arthur | 10,470 | 95 |
| Fort William | 10,470 | 95 |
| Geraldton | 11,872 | 95 |
| Nipigon | 10,470 | 95 |
| Hearst | 11,872 | 95 |
| Kapuskasing | 11,872 | 95 |
| Smooth Rock Falls | 11,872 | 95 |
| Cochrane | 11,591 | 95 |
| Iroquois Falls | 11,498 | 95 |
| Ansonville | 11,498 | 95 |
| Timmins | 11,498 | 91 |
| Porcupine | 11,498 | 91 |
| South Porcupine | 11,498 | 91 |
| Schumacher | 11,498 | 91 |
| Matheson | 11,498 | 91 |
| Ramore | 11,498 | 91 |
| Kirkland Lake | 10,788 | 90 |
| Englehart | 10,406 | 90 |
| New Liskeard | 9,919 | 90 |
| Hailebury | 9,919 | 90 |
| Cobalt | 9,919 | 90 |
| North Bay | 9,180 | 85 |
| Sudbury | 9,496 | 82 |
| Sturgeon Falls | 9,180 | 85 |
| Copper Cliff | 9,496 | 85 |
| Lively | 9,496 | 85 |
| Barrie | 8,267 | 82 |
| Orillia | 8,339 | 85 |
| Gravenhurst | 8,643 | 85 |
| Bracebridge | 8,643 | 85 |
| Huntsville | 8,946 | 85 |
| Toronto | 7,715 | 75 |
| London | 6,935 | 53 |
| Windsor | 6,205 | 49 |
| Stratford | 7,300 | 55 |
| Belleville | 7,665 | 56 |
| Brockville | 7,300 | 56 |
| Cornwall | 7,955 | 81 |
| Welland | 6,321 | 51 |
| Niagara Falls | 6,080 | 50 |
| Ottawa | 8,223 | 77 |
| Quebec | | |
| Montreal | 7,700 | 81 |

COMPETITIVE STATUS OF NATURAL GAS
WITH OTHER FUELS

| | <u>Brandon</u> | <u>Winni- peg</u> | <u>Fort William And Port Arthur</u> | <u>Hearst</u> | <u>Kapus- kasing</u> | <u>Kirk- land Lake</u> |
|---|----------------|-----------------------|---|---------------|--------------------------|--------------------------------|
| <u>Domestic Cooking & Water Heating</u> | | | | | | |
| Cost of 90 Kwh of Electric Energy per Month (Lighting and Refrigeration) | \$3.76 | \$2.07 | \$1.30 | \$4.86 | \$2.13 | \$2.63 |
| Incremental Cost of Electric Cooking 117 Kwh/Month (Equivalent to 0.8 Mcf of 1000 Btu Natural Gas) | 1.76 | 1.02 | .85 | 2.11 | 1.58 | 1.83 |
| Equivalent Cost/Mcf of Natural Gas | 2.20 | 1.27 | 1.06 | 2.64 | 1.98 | 2.28 |
| Proposed Average Cost/Mcf of Natural Gas | 2.00 | 1.43 | 2.50 | 2.00 | 2.00 | 2.00 |
| Incremental Cost of Electric Cooking and Water Heating - 552 Kwh/Month (Equivalent to 3.19 Mcf of 1000 Btu Natural Gas) | 6.11 | 3.27 | 3.98 | 9.94 | 7.45 | 6.90 |
| Equivalent Cost/Mcf of Natural Gas | 1.92 | 1.03 | 1.25 | 3.12 | 2.34 | 2.16 |
| Proposed Average Cost/Mcf of Natural Gas | .87 | 1.32 | 1.55 | 1.67 | 1.67 | 1.67 |
| <u>Domestic and Commercial Space Heating</u> | | | | | | |
| Cost of #2 Furnace Oil | | | | | | |
| Price in Cents per Imperial Gallon | 18.7¢ | 17.7¢ | 18.9¢ | 25.7¢ | | 24.1¢ |
| Equivalent Cost/Mcf 1000 Btu Natural Gas (Oil Efficiency = 60%, Gas Efficiency = 75%) | \$1.38 | \$1.31 | \$1.40 | \$1.90 | | \$1.78 |
| Goal - Domestic and Small Commercial Use | | | | | | |
| Weighted Average Price/Ton | | | | | | |
| Anthracite Coal | N.A. | \$24.00 | \$25.50 | \$32.50 | | \$32.25 |
| Bituminous | \$12.00 | N.A. | \$23.50 | \$24.50 | | \$25.00 |
| Equivalent Cost/Mcf (Coal Ef- ficiency = 50% Gas Ef- ficiency = 75%) | | | | | | |
| Anthracite | N.A. | \$1.44 | \$1.53 | \$1.96 | | \$1.94 |
| Bituminous | \$.67 | N.A. | \$1.30 | \$1.36 | | \$1.39 |
| Average Cost/Mcf for Natural Gas on Proposed Domestic Heating Rate | | | | | | |
| With General Use | \$.64 | \$1.10 | \$1.13 | \$1.23 | \$1.23 | \$1.23 |
| Without General Use | .69 | 1.16 | 1.16 | 1.26 | 1.26 | 1.26 |
| Average Cost/Mcf for Natural Gas on Proposed Commercial Heating Rate | | | | | | |
| With General Use | \$.64 | \$1.10 | \$1.03 | \$1.12 | \$1.12 | \$1.12 |
| Without General Use | .67 | 1.10 | 1.03 | 1.13 | 1.13 | 1.13 |

| | <u>Sudbury</u> | <u>Toronto</u> | <u>London</u> | <u>Windsor</u> | <u>Niagara Falls</u> | <u>Ottawa</u> |
|---|----------------|----------------|---------------|----------------|--------------------------|---------------|
| <u>Domestic Cooking & Water Heating</u> | | | | | | |
| Cost of 90 Kwh of Electric Energy per Month (Lighting and Refrigeration) | \$1.73 | \$1.46 | \$1.84 | \$2.08 | \$1.40 | \$1.65 |
| Incremental Cost of Electric Cooking 117 Kwh/Month (Equivalent to 0.8 Mcf of 1000 Btu Natural Gas) | 1.26 | 1.48 | 1.26 | 1.37 | 1.05 | .96 |
| Equivalent Cost/Mcf of Natural Gas | 1.58 | 1.85 | 1.58 | 1.71 | 1.31 | 1.20 |
| Proposed Average Cost/Mcf of Natural Gas | 2.50 | 4.15 | 1.34 | 1.34 | 1.68 | 1.47 |
| Incremental Cost of Electric Cooking and Water Heating - 552 Kwh/Month (Equivalent to 3.19 Mcf of 1000 Btu Natural Gas) | 5.96 | 6.96 | 5.96 | 6.46 | 4.88 | 2.93 |
| Equivalent Cost/Mcf of Natural Gas | 1.87 | 2.18 | 1.87 | 2.03 | 1.53 | .92 |
| Proposed Average Cost/Mcf of Natural Gas | 1.65 | 2.20 | 1.08 | 1.08 | 1.24 | 1.39 |
| <u>Domestic and Commercial Space Heating</u> | | | | | | |
| Cost of #2 Furnace Oil | | | | | | |
| Price in Cents per Imperial Gallon | 20.3¢ | 18.1¢ | 18.4¢ | 18.4¢ | 18.3¢ | 19.4¢ |
| Equivalent Cost/Mcf 1000 Btu Natural Gas (Oil Efficiency = 60%, Gas Efficiency = 75%) | \$1.50 | \$1.34 | \$1.37 | \$1.37 | \$1.36 | \$1.43 |
| Coal - Domestic and Small Commercial Use | | | | | | |
| Weighted Average Price/Ton | | | | | | |
| Anthracite Coal | \$29.75 | N.A. | \$26.50 | \$26.50 | \$26.50 | \$28.50 |
| Bituminous | \$23.25 | N.A. | \$18.00 | \$18.00 | \$18.00 | N.A. |
| Equivalent Cost/Mcf (Coal Ef- ficiency = 50% Gas Ef- ficiency = 75%) | | | | | | |
| Anthracite | \$1.79 | N.A. | \$1.60 | \$1.60 | \$1.60 | \$1.72 |
| Bituminous | \$1.29 | N.A. | \$1.00 | \$1.00 | \$1.00 | N.A. |
| Average Cost/Mcf for Natural Gas on Proposed Domestic Heating Rate | | | | | | |
| With General Use | \$1.23 | \$1.20 | \$1.01 | \$1.01 | \$1.00 | \$1.20 |
| Without General Use | 1.26 | 1.52 | 1.08 | 1.08 | 1.15 | 1.25 |
| Average Cost/Mcf for Natural Gas on Proposed Commercial Heating Rate | | | | | | |
| With General Use | \$1.12 | \$1.56 | \$1.00 | \$1.00 | \$1.00 | \$1.31 |
| Without General Use | 1.13 | 1.56 | 1.03 | 1.03 | 1.08 | 1.33 |

| | |
|--|-----------------|
| <u>Domestic Cooking and Water Heating</u> | <u>Montreal</u> |
| Cost of 75 Kwh of Electric Energy/Month (Lighting and Refrigeration) | \$1.70 |
| Incremental Cost of Electric Cooking 88 Kwh/Month (Equivalent to 0.6 Mcf of 1,000 Btu Natural Gas) | \$1.14 |
| Equivalent Cost/Mcf of Natural Gas | \$1.90 |
| Proposed Average Cost/Mcf of Natural Gas | \$3.33 |
| Incremental Cost of Electric Cooking and Automatic Water Heating - 533 Kwh/Month (Equivalent to 3.08 Mcf of 1,000 Btu Natural Gas) | \$4.81 |
| Equivalent Cost/Mcf of Natural Gas | \$1.56 |
| Proposed Average Cost/Mcf of Natural Gas | \$1.98 |
| <u>Domestic and Commercial Space Heating</u> | |
| Anthracite Coal - Domestic and Small Commercial Use - Weighted Average Cost per Ton | \$26.95 |
| Equivalent Cost per Mcf of Natural Gas (Coal Efficiency - 50% Gas Efficiency 75%) | \$1.61 |
| Cost of #2 Furnace Oil - Per Imperial Gallon | 18.3¢ |
| Cost of #1 Range Oil - Per Imperial Gallon | 20.7¢ |
| Equivalent Cost/Mcf 1,000 Btu Natural Gas (Oil Efficiency = 60% Gas Efficiency = 75%) | |
| No. 2 Furnace Oil | \$1.35 |
| No. 1 Range Oil | \$1.59 |
| Average Cost/Mcf for Natural Gas on Proposed Domestic Heating Rate | |
| Central S.H. With General Use | \$1.20 |
| Central S.H. Without General Use | \$1.39 |
| Non-Central S.H. With General Use | \$1.35 |
| Non-Central S.H. Without General Use | \$1.55 |
| Average Cost/Mcf for Natural Gas on Proposed Commercial Heating Rate | \$1.20 |

COMPARISON OF COMPETITIVE FUEL COSTS

INDUSTRIAL FUELS

| | <u>Winnipeg</u> | Fort William And <u>Port Arthur</u> | <u>Toronto</u> | <u>London</u> | Niagara <u>Falls</u> | <u>Montreal</u> |
|---|-----------------|---|----------------|---------------|-------------------------|-----------------|
| OIL FUELS | | | | | | |
| Posted Price of Bunker "C" oil in Cents per Imperial gallon | 9.3¢ | N. A. | 10.9¢-12.3¢ | 10.7¢ | 10.6¢ | 9.7¢ |
| Equivalent Cost/Mcf 1,000 Btu Natural Gas (At Equal Efficiencies) | 51¢ | - | 60.2¢-70¢ | 59¢ | 58¢ | 54¢ |
| Price of #2 Oil in Cents per Imperial gallon | 17.7¢ | 18.9¢ | 18.1¢ | 18.4¢ | 18.3¢ | 18.3¢ |
| Equivalent Cost/Mcf 1,000 Btu Natural Gas (Oil Efficiency = 60%, Gas Efficiency = 75%) | \$1.31 | \$1.40 | \$1.34 | \$1.37 | \$1.36 | \$1.35 |
| SOLID FUELS | | | | | | |
| Average Cost per Ton | | | | | | |
| Lignite <u>1/</u> | \$7.80 | \$7.80 | - | - | - | - |
| Bituminous Coal <u>2/</u> | \$13.10 | \$12.90 | N. A. | \$14.75 | N. A. | \$15.50 |
| Equivalent Cost/Mcf 1,000 Btu Natural Gas Lignite (Lignite Efficiency = 70%, Gas Efficiency = 80%) | 62¢ | 62¢ | - | - | - | - |
| Bituminous Coal (At Equal Efficiencies) | 48¢ | 47¢ | - | 54¢ | - | 60¢ |
| Proposed Average Cost/Mcf 1,000 Btu Natural Gas | | | | | | |
| Firm Industrial Rate | 40¢ | 58¢ | 70¢-95¢ | 80¢ | 80¢ | 70¢-90¢ |
| Interruptible Industrial Rate | 33¢ | 35¢ | 50¢-65¢ | N. A. | 50¢ | 40¢-50¢ |

1/ Includes \$2.00/Ton handling charges.

2/ Includes \$1.00/Ton handling charges.

TRANS-CANADA PIPE LINES LIMITED

Review of Current Status
of Pipeline Project

FEBRUARY, 1957



COMMONWEALTH SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

TRANS-CANADA PIPE LINES LIMITED

Review of Current Status
of Pipeline Project

FEBRUARY, 1957

COMMONWEALTH



SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

February 6, 1957

TRANS-CANADA PIPE LINES LIMITED
Review of Current Status of Pipeline Project

Trans-Canada Pipe Lines Limited
160 Bloor Street East
Toronto 5, Ontario, Canada

Gentlemen:

Supplementing our September, 1956 "Report On Economic Feasibility Of Proposed Natural Gas Pipeline Project," our "Supplement of October, 1956" to the original report, our "Ten-Year Projection Under Plan 1 and Plan 2, October 23, 1956" transmitted by our letter of November 26, 1956 and our "Study Of Gas Requirements Of Markets To Be Served" of December, 1956--all dealing with the pipeline project of Trans-Canada Pipe Lines Limited, as now proposed, we have currently reviewed the status of the project at your request and report herein our findings and conclusions.

1. With regard to Trans-Canada's program for construction of facilities the only significant change since our report of September, 1956 is that the precise routing of the lateral line from Toronto Junction to Sheridan has been determined with the result that the length of this section of line will be 33 miles instead of 25 miles as originally planned. There is also the possibility that two compressor stations planned for installation in 1957, principally for training purposes, may be shifted into the 1958 program due to inability to get certain major equipment

this year. It should be noted in passing that as a result of a typographical error in Exhibit 2, page 3 of the September report it was indicated that under Plan 2 only one 2,500 horsepower compressor unit was scheduled for installation at Station 10 in 1957. The correct figure was two such units, under either Plan 1 or Plan 2, and the construction and operating cost estimates shown in the report correctly reflected the two units for both Plans.

With regard to line pipe and materials, in order to meet detailed construction schedules it has been necessary for the company to reallocate line pipe from the several sources of pipe supply among the various sections of the line, causing some changes in cost of pipe, freight charges, duty and sales taxes. Also, Canadian freight rates were increased 4% effective January 1, 1957; United States freight rates were increased 7% effective December 17, 1956; and the price of pipe being obtained from England was increased in December the equivalent of \$10 (U.S.) per ton. The over-all effect of these changes, together with corresponding modification of the contingency provision and engineering overheads, and reflecting a correction of the housing and maintenance facilities estimate, \$943,000 of which were incorrectly allocated to the Crown Corporation section cost in the September report, increases the cost of the Trans-Canada portion of the project as now proposed over the September, 1956 estimated cost of construction of the Trans-Canada portion of the project as originally proposed, through October 31, 1958, by \$6,414,229 to a total of \$216,703,127. This cost estimate is exclusive of preliminary construction costs incurred prior to June 7, 1956, gas for cleaning and purging, and interest during construction and standby fees in connection with financing.

As a result of elimination of an aerial crossing, reestimate of certain line materials requirements and elimination of housing and maintenance facilities costs previously allocated to the section incorrectly, which in total more than offset upward adjustments in pipe price, freight rate, duty, sales tax, contingencies and overheads, the estimated cost of the Crown Corporation section from the Manitoba-Ontario border to Kapuskasing, Ontario, through October 31, 1958, has been reduced \$4,868,540 to a figure of \$114,652,793, excluding preliminary construction costs, gas for cleaning and purging and interest during construction.

All of the cost computations indicated above were based on the assumption of parity between the U.S. dollar and the Canadian dollar. The current rate of exchange favors the Canadian dollar by nearly 4%. However, purchases in the United States and in England are in U.S. dollars or equivalent and a substantial portion of the funds to be raised by the financing program will also be in U.S. dollars, tending by offset to minimize the effect of exchange on the construction program. It is estimated that if current rate of exchange remains constant through the initial construction period ending October 31, 1958 exchange would adversely affect the company's cash position to the extent of about \$800,000. Moreover, if it is assumed that the same conditions continue throughout the first five years of full operation, it is estimated that the cumulative effect of exchange from June 7, 1956 through October 31, 1963 on the company's cash position would be a benefit in the net amount of \$900,000. In view of the relative size of these amounts when considered in relation to the \$8,800,000 provision for contingencies contained in the current construction estimates reviewed by us,

detailed consideration of the effect of the exchange rate has been omitted in connection with the construction cost estimates.

On January 21, 1957, following completion of our review of the construction cost of the project, United States pipe fabricators increased their prices \$6 per ton, applicable to the balance of the 34-inch pipe remaining to be delivered, and the 30-inch pipe and the 24-inch pipe to be purchased in the United States. The cost of the 20-inch pipe to be fabricated in Canada is based on a U.S. price which has been increased \$9 per ton. Reflecting associated increases in duty and sales tax charges, it is estimated that the effect of this price increase will total \$1,487,000 for the company portion of the project and \$388,000 for the Crown Corporation section. As a possible offsetting factor, recent statements by responsible engineering personnel of the company indicate that, based on company field investigations, the estimate used in the September report of \$11.64 per foot for average construction costs for the entire 30-inch pipe section from Winnipeg to Toronto Junction may be high, with the company's present thinking indicating the possibility of an average cost as low as \$9 per foot. Until actually supported by contract prices it is believed that the estimated cost of installing the 30-inch section should not be reduced. However, there is a possibility that some reduction in such cost could more than offset the most recent pipe price increase. It should be noted that the 5% estimated provision for contingencies related to the estimated construction cost of \$216,703,127 set forth above, aggregates \$8,800,000. Should the company be successful in realizing the lower contract prices indicated, this would result in a saving of \$8,400,000, equivalent to nearly doubling the contingency

provision. Similarly, a \$9,900,000 saving would result should the same lower construction costs apply to the Crown Corporation section. Should the company not be successful in reducing the cost of constructing the 30-inch section, the indicated increased pipe costs would add to the direct cost of the project, before provision for contingencies.

From discussions with company personnel we are informed that the cost of direct materials for the section of 34-inch line constructed during 1956 was running between 2% and 3% under estimate, largely as a result of the rate of exchange and discounts taken. Costs of construction were also running slightly under estimate and, in the aggregate, land and land rights together with engineering and supervision were under estimates by approximately \$100,000 for construction spreads one and two.

2. Through amendments to existing supply contracts or by the execution of new agreements with producers the supply of natural gas available to the Trans-Canada project has now been brought close to balance with the Plan 2 requirements of the project for the various years. There remains a small discrepancy, on the order of 2%, in the amount of gas deliverable under contract and the annual requirements as set forth in the transmittal letter of October 18, 1956, which accompanied the October Supplement to our report. Minimum volumes provided in the contracts for the first five years of full operation have now been reduced to amounts below the minimum sales volumes as determined for those sales contracts which have been negotiated. The contracts now contain dates and construction commitments by Trans-Canada which are consistent with the program as proposed. The price in the contracts is now firm to

January 1, 1968, subject to certain earnings tests, on which date the five-year interval mandatory renegotiation clauses also become effective. The earnings test has been increased to a 7-1/2% return, or such lesser rate of return as may be fixed by regulatory authority, and standards for re-determination have been included in the amended and new agreements. Price adjustments are now permitted between Trans-Canada and its customers until the time that service is actually commenced by the line and thereafter there can be shifts by customers between applicable rates without penalty.

3. The revised transportation agreement with The Alberta Gas Trunk Line Company Limited dated January 29, 1957, which we have reviewed, reflects an adjusted four-year construction program which will be consistent with and which will meet Trans-Canada's gas purchase requirements. The revised agreement provides for a transportation charge to Trans-Canada of 4¢ per Mcf during the first four years after Trans-Canada delivers, or is obligated to deliver, gas to Trunk Line for transportation, with minimum annual payments which are equal to or less than the amounts obtained by multiplying Trans-Canada's minimum sales volumes by 4¢ per Mcf. During this initial four-year period, Trans-Canada will also furnish to Trunk Line, without charge, gas for company use and line, unaccounted-for or other losses. Thereafter the agreed-upon cost-of-service basis for the transportation charge is estimated to be 4¢ per Mcf, or less, under the revised agreement, on the basis of the volume requirements estimated to be transported for Trans-Canada under either Plan 1 or Plan 2.

Supplementing the statement made on page 2 of Section XV of the September, 1956 report with regard to exercise of regulatory authority over Trans-Canada, it is noted that the Board of Transport Commissioners for Canada

has authority to prescribe regulations with respect to accounts and rates of depreciation and to establish a uniform system of accounts which would be applicable to Trans-Canada, which authority has not been exercised to date.

Likewise, with respect to the statement on that page with regard to exercise of Alberta provincial regulatory authority over Trunk Line, it is noted that The Alberta Gas Trunk Line Company Act (Statutes of Alberta, 1954, Chapter 37, Section 30) provides that the directors of the company shall fix its rates but that the Board of Public Utility Commissioners of Alberta is granted authority, upon application of the company or any interested party or by direction of the Lieutenant Governor in Council, to vary or fix the rates fixed by the directors.

4. The Crown section agreement, as amended January 30, 1957, which we have reviewed, provides for a two-year initial construction program coordinated to Trans-Canada's needs and further provides a reduced rental basis for the first year of operation during which the facilities will be only partially completed. The proposed form of the Crown Section Lease, attached to the Agreement to Lease which has been entered into between Trans-Canada and the Government of Canada, which form we have reviewed, provides in detail for rental, purchase and other arrangements substantially the same as contained in the agreement with the Government of Canada of November 21, 1955, as amended April 26, 1956.
5. Definitive sales contracts have now been negotiated with Northern Ontario Natural Gas Company, covering each of three rate zones in which it operates, and with Quebec Natural Gas Corporation, and a revised definitive contract has been negotiated with Winnipeg & Central Gas Company, in addition to the earlier definitive contracts with The Consumers' Gas Company of Toronto, Union

Gas Company of Canada, Limited, and Inter-City Gas Limited. Other contracts, relatively minor, are in the process of negotiation. The over-all effect of these definitive contracts, together with the December, 1956 estimates for certain markets for which detailed studies were made in the fall of 1956, has been to reduce by approximately \$3,300,000 or 1.1% under Plan 1 and approximately \$2,100,000 or 0.7% under Plan 2 the aggregate revenue estimated to be received from the company's customers during the first five years of full operation. The net effect on the company's cash position at the end of the first five years of full operation of these revenue modifications, offset in part by the issuance of additional subordinated income notes to the extent permitted by the Note Purchase Agreement, is estimated to be a reduction of approximately \$1,200,000 under Plan 1 and \$1,400,000 under Plan 2.

The estimated firm requirements of the markets proposed to be served continue to balance out approximately with available pipeline through-put capacity from year to year and estimated markets for interruptible gas sales over and above firm requirements are in excess of the balance of line through-put capacity available in each of the first five years of full operation under Plan 2 and in all but the first year of full operation under Plan 1. It should be noted that development features in the contracts for The Consumers' Gas Company of Toronto and Northern Ontario Natural Gas Company relating to a modified price for "additional firm gas" continue only through October 31, 1963 and that thereafter full rates are in effect for all of the company's customers. It is now expected that the "hypothetical full-development year" will be the year 1963/64.

6. The presently proposed plan for financing (set forth in outline in the attached memorandum) will provide adequate funds for financing the project. On the

basis of our estimates and in the light of our understanding of the operation of the Note Purchase Agreement, the \$21,000,000 of subordinated income notes will be more than ample to cover any deficiency in the early years of earnings necessary to take care of interest requirements down through the subordinated debentures. Times coverage of bond interest by gross income before Dominion income taxes but after depreciation, set forth in the attached tabulation of coverages, will be improved over those shown in the October, 1956 supplement, except for the first two years under Plan 1 and the first year under Plan 2 of full operation. Times coverage of total interest, exclusive of interest on subordinated income notes, by gross income before Dominion income tax but after depreciation will be slightly reduced from the October, 1956 supplement figures but will be of the same order of magnitude as under the earlier financing plan and income estimates.

The proceeds of the financing, after all financing and other charges and interest on securities paid during the initial construction period ending October 31, 1958, will be adequate to cover the estimated costs of construction together with materials and supplies, working capital and cash operating loss incurred during the initial construction period, not fully providing, however, for the amount of \$8,800,000 included for contingencies in such construction costs, unless the company is successful, as it believes it will be, in saving money below the estimated cost of constructing the section of line from Winnipeg to Toronto Junction mentioned in section 1 above. Accordingly, it might be fair to estimate that the company would have to sell approximately \$5 million additional of First

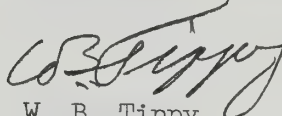
Mortgage Bonds (out of a total of \$13 million of contingency bonds provided for in the First Mortgage Indenture) to cover the full provision for contingencies.

The modifications and changes noted in Section II of the September, 1956 report considered by us to be necessary and desirable have been, in our opinion, consummated in a satisfactory manner so that such conditions to our opinion given in said Section II have been removed.

It is therefore concluded that under the general conditions existing today and after consideration of the various changes and modifications discussed above, our review indicates that the project as proposed, originally stated to be feasible in our report of September, 1956 (after giving effect to the elimination of the conditions and assumptions listed as necessary or desirable in Section II) and in the Supplement of October, 1956, continues to be economically feasible.

Yours very truly,

COMMONWEALTH SERVICES INC.


W. B. Tippy
President

TRANS-CANADA PIPE LINES LIMITED
Memorandum of Proposed Plan for Financing

First Mortgage Bonds

Interest Rate: U.S.A.5-1/4%--Can.5-1/2%

Interest Dates: April 1 and Oct. 1

Maturity Date: October 1, 1978

Price of Bonds

Dates of Sale -

June 1, 1957

Sept. 1, 1957

May 1, 1958

Aug. 1, 1958

Total

Sinking Fund Retirements-\$3,180,000

on October 1, 1961 and semi-

annually thereafter

| Security Sales and Proceeds | | |
|-----------------------------|---------------------------|-------|
| U.S. Purchasers(1) | Canadian Purchasers(1) | Total |

| U.S. \$100. | Can. \$100 | |
|-------------------------|---------------------|----------------------|
| \$ 16,371,000 | \$ 3,629,000 | \$ 20,000,000 |
| 20,464,000 | 4,536,000 | 25,000,000 |
| 28,649,000 | 6,351,000 | 35,000,000 |
| 41,016,000(2) | 7,984,000 | 49,000,000 |
| <u>\$106,500,000(3)</u> | <u>\$22,500,000</u> | <u>\$129,000,000</u> |

Subordinated Debentures and Common Stock-Units

Interest Rate on Debentures:

U.S.A.5.60%--Can.5.85%

Interest Dates: Jan. 1 and July 1

Maturity Date of Debentures:

January 1, 1987

Price of Units

U.S. \$156. Can. \$150.

750,000 Units made up of one

\$100 Debenture and 5 shares

of Common Stock @ \$10 per share

Date of Sale -

Feb. 13, 1957

Debentures - U.S. \$20,000,000

Debentures - Can. 55,000,000

Total \$75,000,000

Common Stock Shs.-U.S. 1,000,000

Common Stock Shs.-Can. 2,750,000

Total Shares 3,750,000

| | | |
|---------------|---------------|---------------|
| \$ 20,000,000 |) | \$ 75,000,000 |
| | \$55,000,000) | |
| 10,000,000 |) | 37,500,000 |
| | 27,500,000) | |

Total Proceeds

| | | |
|----------------------|---------------------|----------------------|
| <u>\$ 30,000,000</u> | <u>\$82,500,000</u> | <u>\$112,500,000</u> |
|----------------------|---------------------|----------------------|

Sinking Fund Retirements - Annually,

commencing on or before December

31, 1969 (a) \$2,500,000, or (b)

50% of Sinking Fund Net Income of

the Company for the preceding

fiscal year, whichever is the

smaller

Total Permanent Financing

| | | |
|----------------------|----------------------|----------------------|
| <u>\$136,500,000</u> | <u>\$105,000,000</u> | <u>\$241,500,000</u> |
|----------------------|----------------------|----------------------|

Notes: (1) Division between U.S. and Canadian purchasers is approximately as at January 14, 1957, since which date certain minor changes have occurred.

(2) Includes \$5,000,000 of Escrow Bonds.

(3) Includes \$20,000,000 of Bonds to be pledged under bank loan maturing March 1, 1962.

TRANS-CANADA PIPE LINES LIMITED

INTEREST AND DEBT SERVICE COVERAGE

PLAN 1

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|----------------|----------------|----------------|----------------|----------------|
| Times Coverage of Interest on First Mortgage Bonds, by Gross Income before Dominion Income Tax | .342 | 1.176 | 1.638 | 2.064 | 2.803 |
| Times Coverage of All Interest Paid, exclusive of Interest on Subordinated Income Notes, by Gross Income Before Dominion Income Tax | .209 | .719 | 1.001 | 1.242 | 1.650 |
| Times Coverage of Total Debt Service Requirements (All Interest Paid, exclusive of Interest on Subordinated Income Notes, plus Mortgage Bond and Debenture Retirement Provisions), by Gross Income Before Depreciation | .965 | 1.501 | 1.413 | 1.326 | 1.592 |

PLAN 2

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|----------------|----------------|----------------|----------------|----------------|
| Times Coverage of Interest on First Mortgage Bonds, by Gross Income before Dominion Income Tax | .532 | 1.360 | 1.827 | 2.134 | 2.837 |
| Times Coverage of All Interest Paid, exclusive of Interest on Subordinated Income Notes, by Gross Income Before Dominion Income Tax | .325 | .832 | 1.117 | 1.284 | 1.670 |
| Times Coverage of Total Debt Service Requirements (All Interest Paid, exclusive of Interest on Subordinated Income Notes, plus Mortgage Bond and Debenture Retirement Provisions), by Gross Income Before Depreciation | 1.081 | 1.614 | 1.503 | 1.353 | 1.605 |

TRANS-CANADA PIPE LINES LIMITED

Final Revision of Cost Estimates and Financial Statements
Exhibit 7FR-Plan 1 and Exhibit 8FR-Plan 2

APPENDIX A
To February 6, 1957 Review

MARCH, 1957



COMMONWEALTH SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

TRANS-CANADA PIPE LINES LIMITED

Final Revision of Cost Estimates and Financial Statements
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COMMONWEALTH SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

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TRANS-CANADA PIPE LINES LIMITED

Exhibit 7 FR
Schedule 1
Plan 1

ESTIMATED CONSTRUCTION COST SUMMARY - YEARS ENDING OCTOBER 31, 1956 THROUGH 1962

PLAN 1

| | Construction Year Ending October 31 (1956-11/30) | | | | | | | Total |
|--|--|---------------|---------------|-------------|--------------|--------------|--------------|---------------|
| | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | |
| Direct Construction Costs | | | | | | | | |
| Main Line and Laterals | | | | | | | | |
| Alberta-Saskatchewan Border to Winnipeg | \$29,522,588 | \$ 55,910,584 | \$ 233,000 | \$ - | \$ - | \$ - | \$ - | \$ 85,666,172 |
| Winnipeg to Manitoba-Ontario Border | 270,005 | 13,974,266 | 34,000 | - | - | - | - | 14,278,271 |
| Kapuskasung to Toronto Junction | 1,556,502 | 238,000 | 81,308,459 | - | - | - | - | 83,102,961 |
| Toronto Junction to Sheridan | - | - | 3,150,652 | - | - | - | - | 3,150,652 |
| Toronto Junction to Montreal | 1,523,381 | 150,000 | 23,953,143 | - | - | - | - | 25,626,524 |
| Ottawa Lateral | 110,071 | - | 1,981,258 | - | - | - | - | 2,091,329 |
| Subtotal | 32,982,547 | 70,272,850 | 110,660,512 | - | - | - | - | 213,915,909 |
| Compressor Stations and Housing | - | 5,776,000 | 6,725,000 | 3,038,000 | 13,339,000 | 6,607,000 | 8,835,000 | 44,320,000 |
| Subtotal | 32,982,547 | 76,048,850 | 117,385,512 | 3,038,000 | 13,339,000 | 6,607,000 | 8,835,000 | 258,235,909 |
| Niagara Line-Direct purchase from owners | - | - | 5,400,000 | - | - | - | - | 5,400,000 |
| Total Trans-Canada Pipe Lines Limited | 32,982,547 | 76,048,850 | 122,785,512 | 3,038,000 | 13,339,000 | 6,607,000 | 8,835,000 | 263,635,909 |
| Crown Corporation | 2,144,159 | 52,116,999 | 62,968,178 | 2,169,000 | 6,114,000 | 4,814,000 | 4,345,000 | 134,671,336 |
| Total | \$35,126,706 | \$128,165,849 | \$185,753,690 | \$5,207,000 | \$19,453,000 | \$11,421,000 | \$13,180,000 | \$398,307,245 |
| Interest During Construction | | | | | | | | |
| Main Line and Laterals | | | | | | | | |
| Alberta-Saskatchewan Border to Winnipeg | \$ 558,113 | \$ 3,040,029 | \$ 5,215,439 | \$ - | \$ - | \$ - | \$ - | \$ 8,813,581 |
| Winnipeg to Manitoba-Ontario Border | 9,450 | 262,732 | 867,067 | - | - | - | - | 1,139,249 |
| Kapuskasung to Toronto Junction | 54,478 | 108,955 | 1,332,953 | - | - | - | - | 1,496,386 |
| Toronto Junction to Sheridan | - | - | 48,084 | - | - | - | - | 48,084 |
| Toronto Junction to Montreal | 53,318 | 106,637 | 456,688 | - | - | - | - | 616,643 |
| Ottawa Lateral | 3,852 | 7,705 | 36,257 | - | - | - | - | 48,514 |
| Subtotal | 679,211 | 3,526,058 | 7,957,188 | - | - | - | - | 12,162,457 |
| Compressor Stations and Housing | - | 101,080 | 470,294 | 53,165 | 233,432 | 115,623 | 154,612 | 1,128,206 |
| Subtotal | 679,211 | 3,627,138 | 8,427,482 | 53,165 | 233,432 | 115,623 | 154,612 | 13,290,663 |
| Niagara Line-Direct purchase from owners | - | - | - | - | - | - | - | - |
| Total Trans-Canada Pipe Lines Limited | 679,211 | 3,627,138 | 8,427,482 | 53,165 | 233,432 | 115,623 | 154,612 | 13,290,663 |
| Crown Corporation | 37,523 | 531,069 | 18,979 | 18,979 | 53,497 | 42,122 | 38,019 | 740,188 |
| Total | \$ 716,734 | \$ 4,158,207 | \$ 8,446,461 | \$ 72,144 | \$ 286,929 | \$ 157,745 | \$ 192,631 | \$ 14,030,851 |
| Total Construction Costs | | | | | | | | |
| Main Line and Laterals | | | | | | | | |
| Alberta-Saskatchewan Border to Winnipeg | \$30,080,701 | \$ 58,950,613 | \$ 5,448,439 | \$ - | \$ - | \$ - | \$ - | \$ 94,479,753 |
| Winnipeg to Manitoba-Ontario Border | 279,455 | 14,236,998 | 901,067 | - | - | - | - | 15,417,520 |
| Kapuskasung to Toronto Junction | 1,610,980 | 346,955 | 82,641,412 | - | - | - | - | 84,599,347 |
| Toronto Junction to Sheridan | - | - | 3,198,736 | - | - | - | - | 3,198,736 |
| Toronto Junction to Montreal | 1,576,699 | 256,637 | 24,409,831 | - | - | - | - | 26,243,167 |
| Ottawa Lateral | 113,923 | 7,705 | 2,018,215 | - | - | - | - | 2,139,843 |
| Subtotal | 33,661,758 | 73,798,908 | 118,617,700 | - | - | - | - | 226,078,366 |
| Compressor Stations and Housing | - | 5,877,080 | 7,195,294 | 3,091,165 | 13,572,432 | 6,722,623 | 8,989,612 | 45,448,206 |
| Subtotal | 33,661,758 | 79,675,988 | 125,812,994 | 3,091,165 | 13,572,432 | 6,722,623 | 8,989,612 | 271,526,572 |
| Niagara Line-Direct purchase from owners | - | - | 5,400,000 | - | - | - | - | 5,400,000 |
| Total Trans-Canada Pipe Lines Limited | 33,661,758 | 79,675,988 | 131,212,994 | 3,091,165 | 13,572,432 | 6,722,623 | 8,989,612 | 276,926,572 |
| Crown Corporation | 2,181,682 | 52,648,068 | 62,987,157 | 2,187,979 | 6,167,497 | 4,856,122 | 4,383,019 | 135,411,524 |
| Total | \$35,843,440 | \$132,324,056 | \$194,200,151 | \$5,279,144 | \$19,739,929 | \$11,578,745 | \$13,372,631 | \$412,338,096 |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED OPERATION AND MAINTENANCE EXPENSES

PLAN 1

| | Unit Cost | 1957/58 | | 1958/59 | | 1959/60 | | 1960/61 | | 1961/62 | | 1962/63 | |
|--|--------------|----------|----------------|-----------|------------------|----------|------------------|----------|------------------|----------|------------------|----------|------------------|
| | | Quantity | \$ | Quantity | \$ | Quantity | \$ | Quantity | \$ | Quantity | \$ | Quantity | \$ |
| 1. Pipeline Maintenance and Patrol | | | | | | | | | | | | | |
| (a) Western Zone | \$ 400/Mi. | 586 | \$ 234,000 | 586 | \$ 234,000 | 586 | \$ 234,000 | 586 | \$ 234,000 | 586 | \$ 234,000 | 586 | \$ 234,000 |
| (b) Central Zone | 700/Mi. | 395 | 276,500 | 1,251 | 876,000 | 1,251 | 876,000 | 1,251 | 876,000 | 1,251 | 876,000 | 1,251 | 876,000 |
| (c) Eastern Zone | 300/Mi. | | | 381 | 114,000 | 381 | 114,000 | 381 | 114,000 | 381 | 114,000 | 381 | 114,000 |
| 2. Niagara Line | | | | | | | | | | | | | |
| Maintenance and Patrol | 300/Mi. | - | - | 76 | 22,800 | 76 | 22,800 | 76 | 22,800 | 76 | 22,800 | 76 | 22,800 |
| 3. Communications | 135/Mi. | 981 | <u>132,400</u> | 2,294 | <u>309,700</u> | 2,294 | <u>309,700</u> | 2,294 | <u>309,700</u> | 2,294 | <u>309,700</u> | 2,294 | <u>309,700</u> |
| Subtotal | | | \$ 642,900 | | \$1,556,500 | | \$1,556,500 | | \$1,556,500 | | \$1,556,500 | | \$1,556,500 |
| 4. Compressor Station - O & M | | | | | | | | | | | | | |
| (a) Centrifugal | \$ 8/H.P. | 7,600 | \$ 30,400 | 1/ 15,200 | \$ 121,600 | 15,200 | \$ 121,600 | 38,000 | \$ 304,000 | 45,600 | \$ 364,800 | 60,800 | \$ 486,400 |
| (b) Reciprocating | \$ 16/H.P. | 5,000 | 40,000 | 1/ 17,500 | 280,000 | 30,000 | 480,000 | 54,000 | 864,000 | 76,500 | 1,224,000 | 99,000 | 1,584,000 |
| (c) Housing Operation | \$7,000/Sta. | 2 | 14,000 | 6 | 42,000 | 8 | 56,000 | 13 | 91,000 | 15 | 105,000 | 15 | 105,000 |
| 5. Measuring and Regulating Stations | | | | | | | | | | | | | |
| - O & M | \$6,000/Sta. | 7 | 42,000 | 43 | 258,000 | 43 | 258,000 | 43 | 258,000 | 43 | 258,000 | 43 | 258,000 |
| 6. Contingencies | | | <u>75,000</u> | | <u>250,000</u> | | <u>250,000</u> | | <u>250,000</u> | | <u>250,000</u> | | <u>250,000</u> |
| 7. Total Operation and Maintenance | | | \$ 844,300 | | \$2,508,100 | | \$2,722,100 | | \$3,323,500 | | \$3,758,300 | | \$4,239,900 |
| 8. Administration and Overhead <u>2/</u> | | | <u>422,200</u> | | <u>1,191,300</u> | | <u>1,224,900</u> | | <u>1,412,500</u> | | <u>1,503,300</u> | | <u>1,696,000</u> |
| 9. Total Expenses | | | \$1,266,500 | | \$3,699,400 | | \$3,947,000 | | \$4,736,000 | | \$5,261,600 | | \$5,935,900 |

Notes:

1/ Compressor station operation and maintenance expense for 1957/58 computes on basis of \$4/installed H.P. for centrifugal stations and \$8/installed H.P. for reciprocating.

2/ Administration and overhead figured as follows: 1957/58 - 50%, 1958/59 - 47.5%, 1959/60 - 45%, 1960/61 - 42.5%, 1961/62 - 40%, 1962/63 - 40%.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS SALES AND REVENUE

Exhibit 7 FR
Schedule 3
Plan 1

PLAN 1

| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|---|-----------------|--------------|---------------|---------------|---------------|---------------|
| <u>Winnipeg and West</u> | | | | | | |
| <u>Requirements - MCF</u> | | | | | | |
| Saskatchewan Power Corporation | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| Plains Western Gas & Electric Company | 931,180 | 1,104,103 | 1,261,858 | 1,401,153 | 1,538,860 | 1,656,240 |
| Manitoba Power Corporation | - | 1,000,000 | 1,240,000 | 2,100,000 | 3,100,000 | - |
| Intercity Gas Company | 1,015,390 | 1,092,425 | 1,166,650 | 1,238,197 | 1,320,602 | 1,396,009 |
| Winnipeg & Central Gas Company | 5,484,000 | 6,665,000 | 7,950,000 | 8,404,000 | 9,531,000 | 9,531,000 |
| Total | 10,724,670 | 13,847,128 | 16,299,608 | 18,344,550 | 21,385,262 | 24,171,549 |
| <u>Revenue</u> | | | | | | |
| Saskatchewan Power Corporation | \$ 690,467 | \$ 835,830 | \$ 981,192 | \$ 1,090,228 | \$ 1,235,590 | \$ 1,380,952 |
| Plains Western Gas & Electric Company | 252,853 | 373,504 | 437,476 | 489,132 | 539,200 | 579,450 |
| Manitoba Power Corporation | - | 250,000 | 310,000 | 420,000 | 620,000 | - |
| Intercity Gas Company | 313,881 | 337,815 | 360,865 | 457,255 | 488,569 | 517,223 |
| Winnipeg & Central Gas Company | 1,314,445 | 1,828,025 | 2,257,675 | 2,746,100 | 3,173,675 | 3,173,675 |
| Total | \$ 2,571,646 | \$ 3,625,174 | \$ 4,347,138 | \$ 5,202,715 | \$ 6,056,454 | \$ 6,551,300 |
| <u>East of Winnipeg</u> | | | | | | |
| <u>Requirements - MCF</u> | | | | | | |
| Northern Ontario Natural Gas Company Limited | | | | | | |
| Western Ontario Zone | 6,350,000 1/ | 9,915,000 | 10,331,586 | 10,728,386 | 9,951,000 | 10,593,000 |
| Northern Ontario Zone | - | 11,731,000 | 16,195,968 | 21,870,140 | 21,625,000 | 23,238,000 |
| Subtotal | 6,350,000 | 21,646,000 | 26,527,554 | 32,598,526 | 31,576,000 | 33,831,000 |
| Barrie, Orillia, etc. | - | 380,197 | 590,084 | 721,428 | 919,656 | 1,042,823 |
| The Consumers' Gas Company of Toronto | - | 25,595,600 | 31,025,000 | 35,678,800 | 43,435,000 | 51,191,300 |
| Union Gas Company of Canada, Limited | - | 5,000,000 | 17,082,567 | 20,028,492 | 20,800,000 | 23,800,000 |
| The Grimsby Natural Gas Company, Limited | - | 111,408 | 119,731 | 128,023 | 136,584 | 144,970 |
| Dominion Natural Gas Company, Limited | - | 300,000 | 500,000 | 600,000 | 700,000 | 780,000 |
| Lakeland Natural Gas Limited | - | 1,397,538 | 2,344,141 | 2,857,799 | 3,734,219 | 3,951,319 |
| Lake Shore Group | - | 3,047,000 | 3,229,545 | 3,590,303 | 3,797,000 | 3,967,000 |
| Interprovincial Utilities Limited | - | 8,721,305 | 7,409,876 | 7,409,034 | 7,280,174 | 8,923,296 |
| Quebec Natural Gas Corporation | - | 14,708,247 | 22,684,352 | 30,128,495 | 36,282,665 | 39,852,743 |
| Total | 6,350,000 | 80,907,295 | 111,512,850 | 133,740,700 | 145,561,275 | 167,484,451 |
| Total Requirements in MCF - East and West of Winnipeg | 17,074,670 | 94,756,423 | 127,812,458 | 152,085,550 | 170,946,530 | 189,656,000 |
| <u>Revenue</u> | | | | | | |
| Northern Ontario Natural Gas Company Limited | | | | | | |
| Western Ontario Zone | \$ 2,024,780 1/ | \$ 3,138,780 | \$ 3,322,008 | \$ 3,504,512 | \$ 3,395,850 | \$ 3,644,880 |
| Northern Ontario Zone | - | 4,613,900 | 6,478,082 | 8,861,930 | 9,079,000 | 9,824,000 |
| Subtotal | 2,024,780 | 7,752,680 | 9,800,090 | 12,366,442 | 12,474,850 | 13,468,880 |
| Barrie, Orillia, etc. | - | 202,265 | 313,925 | 383,800 | 597,776 | 677,835 |
| The Consumers' Gas Company of Toronto | - | 11,560,250 | 14,023,632 | 16,178,240 | 19,706,790 | 23,267,370 |
| Union Gas Company of Canada, Limited | - | 1,500,000 | 6,383,240 | 7,574,382 | 8,112,000 | 9,282,000 |
| The Grimsby Natural Gas Company, Limited | - | 59,269 | 63,697 | 68,108 | 88,780 | 94,231 |
| Dominion Natural Gas Company, Limited | - | 159,600 | 266,000 | 319,200 | 455,000 | 507,000 |
| Lakeland Natural Gas Limited | - | 655,601 | 1,097,142 | 1,336,080 | 1,747,476 | 1,851,996 |
| Lake Shore Group | - | 1,212,803 | 1,509,998 | 1,734,534 | 1,873,941 | 1,976,451 |
| Interprovincial Utilities Limited | - | 3,311,965 | 3,030,623 | 3,102,744 | 3,257,699 | 3,957,751 |
| Quebec Natural Gas Corporation | - | 5,892,021 | 9,114,804 | 12,624,341 | 15,625,967 | 17,377,300 |
| Total | \$ 2,024,780 | \$32,306,454 | \$ 45,632,330 | \$ 55,687,871 | \$ 62,144,279 | \$ 72,460,814 |
| Total Revenue - East and West of Winnipeg | \$ 4,596,426 | \$35,931,628 | \$ 47,000,368 | \$ 61,334,386 | \$ 68,200,733 | \$ 78,112,114 |

1/ Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1, 1958.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS PURCHASE REQUIREMENTS (MMCF) AND COST OF GAS PURCHASED

PLAN 1

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| Gas Purchased for Sale | 17,075 | 94,750 | 127,812 | 152,086 | 170,047 | 186,656 |
| Gas for Compressor Fuel | 182 | 2,492 | 4,123 | 6,775 | 8,812 | 11,206 |
| Subtotal | 17,257 | 97,242 | 131,935 | 158,861 | 178,859 | 197,862 |
| Losses 1% | 173 | 973 | 1,319 | 1,588 | 1,788 | 1,972 |
| Subtotal | 17,430 | 98,215 | 133,254 | 160,449 | 180,647 | 199,841 |
| Gas Purchased for Cleaning and purging Filling the line | 217 2,357 | | | | | |
| Total Purchased Gas | 20,004 | 98,215 | 133,254 | 160,449 | 180,647 | 199,841 |
| Cost of Gas Purchased - ¢ per Mcf | | | | | | |
| Cost of gas | 10.22916 | 10.44227 | 10.69800 | 10.95372 | 11.20945 | 11.46518 |
| Transportation cost | 4.09167 | 4.09167 | 4.09167 | 4.09167 | 4.09167 | 4.09167 |
| Delivered cost of gas (1) | 14.32083 | 14.53394 | 14.78967 | 15.04539 | 15.30112 | 15.55685 |
| Cost of Gas Purchased for Sale (operating expense) | \$2,496,144 | \$14,274,433 | \$19,707,975 | \$24,140,178 | \$27,641,014 | \$31,088,965 |
| Cleaning and purging (construction cost) | 30,647 | - | - | - | - | - |
| Filling the line (inventory gas) | 337,542 | - | - | - | - | - |
| Total Cost of Gas Purchased | \$2,864,333 | \$14,274,433 | \$19,707,975 | \$24,140,178 | \$27,641,014 | \$31,088,965 |
| Requirements MMcf | | | | | | |
| Winnipeg and West | 10,725 | 13,849 | 16,300 | 18,345 | 21,385 | 19,172 |
| East of Winnipeg | 6,350 | 80,907 | 111,512 | 133,741 | 148,662 | 167,484 |
| Total | 17,075 | 94,756 | 127,812 | 152,086 | 170,047 | 186,656 |
| % of Requirements - each year | | | | | | |
| Winnipeg and West | 62.81 | 14.62 | 12.75 | 12.06 | 12.58 | 10.27 |
| East of Winnipeg | 37.19 | 85.38 | 87.25 | 87.94 | 87.42 | 89.73 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Allocation of total purchased MMcf based on requirements in each year | | | | | | |
| Winnipeg and West | 12,565 | 14,359 | 16,990 | 19,349 | 22,725 | 20,524 |
| East of Winnipeg | 7,439 | 83,856 | 116,264 | 141,100 | 157,922 | 179,317 |
| Total | 20,004 | 98,215 | 133,254 | 160,449 | 180,647 | 199,841 |

(1) At Saskatchewan Gate.

DATA RE CROWN CORPORATION SECTION RENTALS AND PURCHASE PRICE - PLAN 1

- Design capacity east of Winnipeg @ 14.73 psia MMCF per day; 2/3 of capacity for one year equals 74,922 MMCF.
- Cost of leased facilities equals \$54,829,750 (first year only); 4-1/2% equals \$2,467,339; rental payment per Mcf equals \$.03338.
- Cost of leased facilities equal \$120,004,886 (after first year); 4-1/2% equals \$5,400,220; rental payment per Mcf equals \$.07208.

12 Months Ended: (\$000 Omitted)

Given Or Assumed The Following:

| | <u>10-31-58</u> | <u>10-31-59</u> | <u>10-31-60</u> | <u>10-31-61</u> | <u>10-31-62</u> | <u>10-31-63</u> |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Annual Volumes delivered East of Winnipeg @ 14.73 psia MMcf | 7,439 | 83,856 | 116,264 | 141,100 | 157,922 | 179,317 |
| Annual Amount of Mcf Rental Payments (@ \$.03338 per Mcf for first year and \$.07208 thereafter) | 248 | 6,044 | 8,380 | 10,170 | 11,383 | 12,925 |
| Capital Cost per Agreement as of Beginning of Each Year | 54,830 | 117,817 | 120,005 | 126,172 | 131,029 | 135,412 |

(A) Calculation of Duration of 1% Payment Per Section 6 (b) (iv) of Agreement dated 11/21/55 with Government of Canada (Disregarding the Calendar Year Element) 7% Per Annum on Capital Costs

| | | | | | | |
|--|-------|-------|-------|--------|--------|--------|
| Less: | 3,838 | 8,247 | 8,400 | 8,832 | 9,172 | 9,479 |
| Annual Amount of Rental Payment - Based upon Mcf | 248 | 6,044 | 8,380 | 10,170 | 11,383 | 12,925 |
| - Based on 1% of \$120,005 | - | - | - | - | 1,200 | - |
| Total | 248 | 6,044 | 8,380 | 10,170 | 12,583 | 12,925 |

| | | | | | | |
|--|-------|-------|-------|---------|---------|---------|
| (1) Deficiency - Per Year | 3,590 | 2,203 | 20 | (1,339) | (3,411) | (3,446) |
| (2) - Cumulative (Line 4 Preceding Year Plus Line 1) | 3,590 | 5,793 | 5,939 | 4,808 | 1,612 | (1,658) |
| (3) Interest @ 3-1/2% on Deficiency at End of Preceding Year | - | 126 | 207 | 225 | 176 | 63 |
| (4) Total Net Deficiency | 3,590 | 5,919 | 6,146 | 5,033 | 1,788 | (1,555) |

(B) Calculation of Purchase Price From Time to Time

| | Under Section 7 or 8 (a) of Agreement | | | | | Under Section 8 (b) (1) of Agreement | | | | |
|----------------|---------------------------------------|----------------|------------|---------------|----------|--------------------------------------|-------------------|--------------|------------|------------|
| | Rental Pay- | 3-1/2% P/A | Amortiza- | Add Additions | Purchase | 3-1/2% P/A | Interest @ 3-1/2% | Amortization | | Property |
| | ments from | Interest Semi- | tion Semi- | As Of | Price | Amortiza- | on Amortization | Per Year | Cumulative | Costs Time |
| | (A) above * | annually | annually | Year End | | tion | Cumulative | | | To Time |
| As of 10-31-57 | - | - | - | 54,830 | 54,830 | - | - | - | - | 54,830 |
| 4-30-58 | 124 | 960 | (836) | - | 55,666 | - | - | - | - | - |
| 10-31-58 | 124 | 974 | (850) | 62,987 | 119,503 | 1,919 | - | 1,919 | 1,919 | 117,817 |
| 4-30-59 | 3,022 | 2,091 | 931 | - | 118,572 | - | - | - | - | - |
| 10-31-59 | 3,022 | 2,075 | 947 | 2,188 | 119,813 | 4,123 | 67 | 4,190 | 6,109 | 120,005 |
| 4-30-60 | 4,190 | 2,097 | 2,093 | - | 117,720 | - | - | - | - | - |
| 10-31-60 | 4,190 | 2,060 | 2,130 | 6,167 | 121,757 | 4,200 | 214 | 4,414 | 10,523 | 126,172 |
| 4-30-61 | 5,085 | 2,131 | 2,954 | - | 118,803 | - | - | - | - | - |
| 10-31-61 | 5,085 | 2,079 | 3,006 | 4,857 | 120,654 | 4,416 | 368 | 4,784 | 15,307 | 131,029 |
| 4-30-62 | 6,291 | 2,111 | 4,180 | - | 116,474 | - | - | - | - | - |
| 10-31-62 | 6,292 | 2,038 | 4,254 | 4,383 | 116,603 | 4,586 | 536 | 5,122 | 20,429 | 135,412 |
| 4-30-63 | 6,462 | 2,041 | 4,421 | - | 112,182 | - | - | - | - | - |
| 10-31-62 | 6,463 | 1,963 | 4,500 | - | 107,682 | 4,740 | 715 | 5,455 | 25,884 | 135,412 |

Under Section 8 (b) (2) of Agreement

Total Purchase Price At Any Time (70% of \$120,005)

84,035

* The aggregate of each six months rental will probably vary. However, it is assumed here they will not.

TRANS-CANADA PIPE LINES LIMITED

Income Account Projection

1. Basis of latest Sales Volumes and Rates inside Canada - and without regard to limitations on Gas Volumes in Alberta.
2. Crown Company Facilities Not Purchased.
3. Emerson Lateral Not Constructed.

PLAN 1

Income Account Projection - 12 Months Ended:
(\$000s Omitted)

| | <u>10-31-56</u> | <u>10-31-57</u> | <u>10-31-58</u> | <u>10-31-59</u> | <u>10-31-60</u> | <u>10-31-61</u> | <u>10-31-62</u> | <u>10-31-63</u> |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Operating Revenues | | | | | | | | |
| Winnipeg and West | \$ - | \$ - | \$ 2,572 | \$ 3,625 | \$ 4,347 | \$ 5,203 | \$ 6,057 | \$ 5,651 |
| East of Winnipeg | - | - | 2,025 | 32,307 | 45,603 | 55,688 | 63,940 | 72,461 |
| Total Revenues | - | - | 4,597 | 35,932 | 49,950 | 60,891 | 69,997 | 78,112 |
| (14.73 psia Mcf Unit Cost of Gas at Alberta Border) | | | | | | | | |
| Cost of Gas Purchased | - | - | 2,496 | 14,274 | 19,708 | 24,140 | 27,641 | 31,089 |
| Operations and Maintenance | - | - | 1,267 | 3,699 | 3,947 | 4,736 | 5,262 | 5,936 |
| Rentals - Niagara Line | - | 75 | 250 | - | - | - | - | - |
| - Based on Mcf @ 3.338¢ for first year and 7.208¢ thereafter and on Net Profits, per formula | - | - | 248 | 6,044 | 8,380 | 10,170 | 12,583 | 12,925 |
| Taxes - General | - | 87 | 351 | 1,164 | 1,186 | 1,265 | 1,311 | 1,365 |
| Total | - | 162 | 4,612 | 25,181 | 33,221 | 40,311 | 46,797 | 51,315 |
| Balance Before Depreciation and Income Taxes | - | (162) | (15) | 10,751 | 16,722 | 26,580 | 23,200 | 26,797 |
| Depreciation Provision | - | - | 796 | 8,549 | 8,840 | 9,195 | 9,470 | 9,628 |
| Gross Income Before Income Taxes | - | (162) | (811) | 2,202 | 7,882 | 11,385 | 13,730 | 17,169 |
| Taxes - Income | - | - | - | - | - | - | - | - |
| Gross Income | - | (162) | (811) | 2,202 | 7,882 | 11,385 | 13,730 | 17,169 |
| Interest - First Mortgage Bonds - Public | - | 662 | 3,958 | 6,830 | 6,830 | 6,816 | 6,549 | 6,212 |
| - Subordinated Debentures - Public | - | 2,890 | 4,335 | 4,335 | 4,335 | 4,335 | 4,335 | 4,335 |
| - First Mortgage Bonds - Crown Corporation | 202 | 694 | - | - | - | - | - | - |
| - Subordinated Income Notes - Founders | - | - | - | - | - | - | 589 | 807 |
| Amortization of Debt Discount and Expense | - | 91 | 202 | 202 | 202 | 202 | 202 | 202 |
| Interest During Construction (Credit) | (679) | (3,627) | (8,427) | (53) | (233) | (116) | (155) | - |
| Fixed Charges | (477) | 710 | 68 | 11,314 | 11,134 | 11,237 | 11,520 | 11,556 |
| Net Income | \$ 477 | \$ (872) | \$ (879) | \$ (2,112) | \$ (3,245) | \$ 148 | \$ 2,210 | \$ 5,613 |
| Earned Surplus - Beginning of Year | \$ - | \$ 477 | \$ (395) | \$ (1,274) | \$ (10,386) | \$ (13,631) | \$ (13,483) | \$ (11,273) |
| - End of Year | 477 | (395) | (1,274) | (10,386) | (13,631) | (13,483) | (11,273) | (5,660) |
| Common Shares Outstanding - End of Period | | 5,823,184 | 5,823,184 | 5,823,184 | 5,823,184 | 5,823,184 | 5,823,184 | 5,823,184 |
| Earnings Per Common Share (Commencing with first year of full operation) | | | | - | - | .03 | .38 | .96 |

TRANS-CANADA PIPE LINES LIMITED

CASH FLOW PROJECTION - PLAN 1
((\$000s Omitted))

| Cash Flow Projection - 12 Months Ended | 10-31-56 ⁽¹⁾ | 10-31-57 | 10-31-58 | 10-31-59 | 10-31-60 | 10-31-61 | 10-31-62 | 10-31-63 |
|--|-------------------------|----------|-----------|----------|----------|----------|----------|----------|
| Net Income | 477 | (672) | (879) | (9,112) | (3,245) | 148 | 2,210 | 5,613 |
| Add: | | | | | | | | |
| Depreciation | - | - | 796 | 8,549 | 8,840 | 9,195 | 9,470 | 9,628 |
| Amortization of Debt Discount and Expense | - | 91 | 202 | 202 | 202 | 202 | 202 | 202 |
| Income Tax Accrual | - | - | - | - | - | - | - | - |
| Total Cash Operations | 477 | (781) | 119 | (361) | 5,797 | 9,545 | 11,882 | 15,443 |
| Less: | | | | | | | | |
| Income Tax Paid | - | - | - | - | - | - | - | - |
| Retirement of First Mortgage Bonds - Public | - | - | - | - | - | 3,180 | 6,360 | 6,360 |
| Retirement of First Mortgage Bonds - Crown Corporation | - | - | - | - | - | - | - | - |
| Retirement of Subordinated Debentures | - | - | - | - | - | - | - | - |
| Common Dividends | - | - | - | - | - | - | - | - |
| Total Recurring Outgo | - | - | - | - | - | 3,180 | 6,360 | 6,360 |
| Balance - Plus (Minus) Cash | 477 | (781) | 119 | (361) | 5,797 | 6,365 | 5,522 | 9,083 |
| Less: | | | | | | | | |
| Construction | 33,662 | 79,676 | 125,813 | 3,091 | 13,572 | 6,723 | 8,990 | - |
| Preliminary Construction Costs Paid at 6/7/56 included in Construction above | (7,974) | - | - | - | - | - | - | - |
| Loan to Western Pipe Lines to Redeem Debentures, and Repayment | - | 5,350 | (5,350) | - | - | - | - | - |
| Acquisition of Niagara Line | - | - | 4,600 | - | - | - | - | - |
| Materials and Supplies (Operations and Maintenance) | - | 1,000 | 3,000 | - | - | - | - | - |
| Materials and Supplies (Gas for filling line) | - | - | 229 | - | - | - | - | - |
| Bond Interest Accruals in excess of Payments | (202) | (2,887) | (4,705) | (2,168) | - | 14 | 28 | 29 |
| Total Other Requirements | 25,486 | 83,139 | 123,587 | 923 | 13,572 | 6,737 | 9,018 | 29 |
| Balance - Plus (Minus) Cash | (25,009) | (83,920) | (123,468) | (1,284) | (7,775) | (372) | (3,496) | 9,054 |
| Add: | | | | | | | | |
| Outside Funds - First Mortgage Bonds - Public | - | 45,000 | 84,000 | - | - | - | - | - |
| - Subordinated Debentures - Public | - | 75,000 | - | - | - | - | - | - |
| - First Mortgage Bonds - Crown Corporation | 33,750 | (33,750) | - | - | - | - | - | - |
| - Subordinated Income Notes - Founders | - | - | - | 4,838 | 7,143 | 2,694 | - | - |
| - Common Stock (2) | - | 38,660 | - | - | - | - | - | - |
| (Financing Charges) - First Mortgage Bonds - Public | - | (693) | (1,217) | - | - | - | - | - |
| - Subordinated Debentures | - | (3,373) | - | - | - | - | - | - |
| - Common Stock | - | (1,687) | - | - | - | - | - | - |
| Prepaid Interest on Subordinated Debentures | - | (7,948) | - | - | - | - | - | - |
| Total Outside Funds | 33,750 | 111,209 | 82,783 | 4,838 | 7,143 | 2,694 | - | - |
| Balance - Plus (Minus) Cash | 8,741 | 27,289 | (40,685) | 3,554 | (632) | 2,322 | (3,496) | 9,054 |
| Cash - Beginning of Period (3) | 6,710 | 15,451 | 42,740 | 2,055 | 5,609 | 4,977 | 7,299 | 3,803 |
| - End of Period (3) | 15,451 | 42,740 | 2,055 | 5,609 | 4,977 | 7,299 | 3,803 | 12,857 |

(1) From June 7 through October 31, 1956.

(2) 1,928,184 shares from Founders @ \$8 approx. equals \$15,411,464
 3,750,000 shares with Subord. Debs. @ \$10 equals 37,500,000
 145,000 shares from Subscription and Options
 Exercised @ \$8 equals 1,160,000
 5,823,184 \$54,071,464

(3) Includes Government Securities.

TRANS-CANADA PIPE LINES LIMITED
INTEREST AND DEBT SERVICE COVERAGE

PLAN 1

1958/59 1959/60 1960/61 1961/62 1962/63

| | | | | | |
|---|------|-------|-------|-------|-------|
| 1. Times Coverage of Interest on First Mortgage Bonds, by Gross Income before Dominion Income Tax <u>1/</u> | .322 | 1.155 | 1.670 | 2.097 | 2.764 |
| 2. Times Coverage of all Interest Paid, exclusive of Interest on Subordinated Income Notes, by Gross Income Before Dominion Income Tax <u>1/</u> | .197 | .707 | 1.021 | 1.261 | 1.628 |
| 3. Times Coverage of Total Debt Service Requirements (All Interest Paid, exclusive of Interest on Subordinated Income Notes, plus Mortgage Bond and Debenture Retirement Provisions), by Gross Income Before Depreciation <u>2/</u> | .963 | 1,498 | 1.436 | 1.345 | 1.585 |

At At At At At At
10/31/58 10/31/59 10/31/60 10/31/61 10/31/62 10/31/63

| | | | | | | |
|---|--------|--------|--------|--------|--------|--------|
| 4. Ratio of Mortgage Debt to Gross Property Account <u>3/</u> | 52.75% | 52.09% | 49.38% | 46.96% | 43.14% | 40.84% |
| 5. Ratio of Mortgage Debt to Net Property Account <u>3/</u> | 53.11% | 54.33% | 53.27% | 52.49% | 49.94% | 49.26% |
| 6. Ratio of Total Long-Term Debt (exclusive of Subordinated Income Notes) to Gross Property Account <u>3/</u> | 83.42% | 82.38% | 78.10% | 74.95% | 70.22% | 67.92% |
| 7. Ratio of Total Long-Term Debt (exclusive of Subordinated Income Notes) to Net Property Account <u>3/</u> | 83.99% | 85.92% | 84.24% | 83.78% | 81.29% | 81.93% |

1/ Data from Exhibit 7 FR, Schedule 6.

2/ Data from Exhibit 7 FR, Schedules 6 and 7.

3/ Data from Exhibit 7 FR, Schedule 8.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST SUMMARY - YEARS ENDING OCTOBER 31, 1956 THROUGH 1962

PLAN 2

| | Construction Year Ending October 31 (1956-11/30) | | | | | | | Total |
|--|--|---------------|-------------|-----------|------------|------------|------------|---------------|
| | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | |
| Direct Construction Costs | | | | | | | | |
| Main Line and Laterals | | | | | | | | |
| Alberta-Saskatchewan Border to Winnipeg | \$29,522,588 | \$ 55,910,584 | \$ 233,000 | \$ - | \$ - | \$ - | \$ - | \$ 85,666,172 |
| Winnipeg to Manitoba-Ontario Border | 270,005 | 13,974,266 | 34,000 | - | - | - | - | 14,278,271 |
| Kapuskasing to Toronto Junction | 1,556,502 | 238,000 | 81,308,459 | - | - | - | - | 83,102,961 |
| Toronto Junction to Sheridan | - | 3,150,652 | - | - | - | - | - | 3,150,652 |
| Toronto Junction to Montreal | 1,523,381 | 23,980,143 | 123,000 | - | - | - | - | 25,626,524 |
| Ottawa Lateral | 110,071 | - | 1,981,258 | - | - | - | - | 2,091,329 |
| Subtotal | 32,882,547 | 97,253,645 | 83,379,717 | - | - | - | - | 213,515,869 |
| Compressor Stations and Housing | - | 5,776,000 | 6,725,000 | 3,038,000 | 13,339,000 | 6,607,000 | 8,835,000 | 44,320,000 |
| Subtotal | 32,882,547 | 103,029,645 | 90,104,717 | 3,038,000 | 13,339,000 | 6,607,000 | 8,835,000 | 258,235,769 |
| Niagara Line - Direct purchase from owners | - | - | 5,400,000 | - | - | - | - | 5,400,000 |
| Total Trans-Canada Pipe Lines Limited | 32,882,547 | 103,029,645 | 95,504,717 | 3,038,000 | 13,339,000 | 6,607,000 | 8,835,000 | 263,635,769 |
| Crown Corporation | 2,144,159 | 52,116,999 | 62,968,178 | 2,169,000 | 6,144,000 | 4,814,000 | 4,345,000 | 134,671,336 |
| Total | 35,126,706 | 155,146,644 | 158,472,895 | 5,207,000 | 19,483,000 | 11,421,000 | 13,180,000 | 398,307,245 |
| Interest During Construction | | | | | | | | |
| Main Line and Laterals | | | | | | | | |
| Alberta-Saskatchewan Border to Winnipeg | 558,113 | 3,040,029 | 4,199,382 | - | - | - | - | 7,797,524 |
| Winnipeg to Manitoba-Ontario Border | 9,450 | 262,732 | 698,148 | - | - | - | - | 970,330 |
| Kapuskasing to Toronto Junction | 54,478 | 108,955 | 1,073,529 | - | - | - | - | 1,236,962 |
| Toronto Junction to Sheridan | - | 55,136 | 154,867 | - | - | - | - | 210,003 |
| Toronto Junction to Montreal | 53,318 | 523,665 | 1,246,227 | - | - | - | - | 1,823,210 |
| Ottawa Lateral | 3,852 | 7,705 | 29,757 | - | - | - | - | 41,314 |
| Subtotal | 679,211 | 3,998,222 | 7,401,910 | - | - | - | - | 12,079,343 |
| Compressor Stations and Housing | - | 101,080 | 401,601 | 53,165 | 233,432 | 115,623 | 154,612 | 1,059,513 |
| Subtotal | 679,211 | 4,099,302 | 7,803,511 | 53,165 | 233,432 | 115,623 | 154,612 | 13,138,856 |
| Niagara Line - Direct purchase from owners | - | - | - | - | - | - | - | - |
| Total Trans-Canada Pipe Lines Limited | 679,211 | 4,099,302 | 7,803,511 | 53,165 | 233,432 | 115,623 | 154,612 | 13,138,856 |
| Crown Corporation | 37,523 | 531,069 | 18,772 | 18,772 | 53,497 | 42,122 | 38,612 | 740,188 |
| Total | 716,734 | 4,630,371 | 7,822,490 | 72,144 | 286,929 | 157,745 | 192,631 | 13,879,044 |
| Total Construction Costs | | | | | | | | |
| Main Line and Laterals | | | | | | | | |
| Alberta-Saskatchewan Border to Winnipeg | 30,080,701 | 58,950,613 | 4,432,382 | - | - | - | - | 93,463,696 |
| Winnipeg to Manitoba-Ontario Border | 279,455 | 14,236,998 | 732,148 | - | - | - | - | 15,248,601 |
| Kapuskasing to Toronto Junction | 1,610,980 | 346,955 | 82,381,988 | - | - | - | - | 84,339,923 |
| Toronto Junction to Sheridan | - | 3,205,788 | 154,867 | - | - | - | - | 3,360,655 |
| Toronto Junction to Montreal | 1,576,699 | 24,503,808 | 1,369,227 | - | - | - | - | 27,449,734 |
| Ottawa Lateral | 113,923 | 7,705 | 2,011,015 | - | - | - | - | 2,132,643 |
| Subtotal | 33,661,758 | 101,251,867 | 71,081,627 | - | - | - | - | 225,995,252 |
| Compressor Stations and Housing | - | 5,877,080 | 7,126,601 | 3,091,165 | 13,572,432 | 6,722,623 | 8,989,612 | 45,379,513 |
| Subtotal | 33,661,758 | 107,128,947 | 78,208,228 | 3,091,165 | 13,572,432 | 6,722,623 | 8,989,612 | 271,374,765 |
| Niagara Line - Direct purchase from owners | - | - | 5,400,000 | - | - | - | - | 5,400,000 |
| Total Trans-Canada Pipe Lines Limited | 33,661,758 | 107,128,947 | 103,608,228 | 3,091,165 | 13,572,432 | 6,722,623 | 8,989,612 | 276,774,765 |
| Crown Corporation | 2,181,682 | 52,648,068 | 62,987,157 | 2,187,972 | 6,167,497 | 4,856,122 | 4,383,012 | 135,411,524 |
| Total | 35,843,440 | 159,777,015 | 166,595,385 | 5,279,144 | 19,739,929 | 11,578,745 | 13,372,631 | 412,186,289 |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED OPERATION AND MAINTENANCE EXPENSES

PLAN 2

| | Unit Cost | 1957/58 | | 1958/59 | | 1959/60 | | 1960/61 | | 1961/62 | | 1962/63 | |
|--|--------------|----------|---------------------|----------|------------------|----------|------------------|----------|------------------|----------|------------------|----------|------------------|
| | | Quantity | \$ | Quantity | \$ | Quantity | \$ | Quantity | \$ | Quantity | \$ | Quantity | \$ |
| 1. Pipeline Maintenance and Patrol | | | | | | | | | | | | | |
| (a) Western Zone | \$ 400/Mi. | 586 | \$ 234,000 | 586 | \$ 234,000 | 586 | \$ 234,000 | 586 | \$ 234,000 | 586 | \$ 234,000 | 586 | \$ 234,000 |
| (b) Central Zone | 700/Mi. | 395 | 277,000 | 1,251 | 876,000 | 1,251 | 876,000 | 1,251 | 876,000 | 1,251 | 876,000 | 1,251 | 876,000 |
| (c) Eastern Zone | 300/Mi. | 341 | 102,300 | 381 | 114,000 | 381 | 114,000 | 381 | 114,000 | 381 | 114,000 | 381 | 114,000 |
| 2. Niagara Line Maintenance and Patrol | 300/Mi. | - | - | 76 | 22,800 | 76 | 22,800 | 76 | 22,800 | 76 | 22,800 | 76 | 22,800 |
| 3. Communications | 135/Mi. | 1,322 | <u>178,800</u> | 2,294 | <u>309,700</u> | 2,294 | <u>309,700</u> | 2,294 | <u>309,700</u> | 2,294 | <u>309,700</u> | 2,294 | <u>309,700</u> |
| Subtotal | | | \$ 792,100 | | \$1,556,500 | | \$1,556,500 | | \$1,556,500 | | \$1,556,500 | | \$1,556,500 |
| 4. Compressor Station - O & M | | | | | | | | | | | | | |
| (a) Centrifugal | \$ 8/H.P. | 7,600 | \$ 30,400 <u>1/</u> | 15,200 | \$ 121,600 | 15,200 | \$ 121,600 | 38,000 | \$ 304,000 | 45,600 | \$ 364,800 | 40,200 | \$ 486,400 |
| (b) Reciprocating | \$ 16/H.P. | 5,000 | 40,000 <u>1/</u> | 17,500 | 280,000 | 30,000 | 480,000 | 54,000 | 864,000 | 76,500 | 1,224,000 | 65,000 | 1,584,000 |
| (c) Housing Operation | \$7,000/Sta. | 2 | 14,000 | 6 | 42,000 | 8 | 56,000 | 13 | 91,000 | 15 | 105,000 | 15 | 105,000 |
| 5. Measuring and Regulating Stations - O & M | \$6,000/Sta. | 27 | 162,000 | 43 | 258,000 | 43 | 258,000 | 43 | 258,000 | 43 | 258,000 | 43 | 258,000 |
| 6. Contingencies | | | <u>75,000</u> | | <u>250,000</u> | | <u>250,000</u> | | <u>250,000</u> | | <u>250,000</u> | | <u>250,000</u> |
| 7. Total Operation and Maintenance | | | \$1,113,500 | | \$2,508,100 | | \$2,722,100 | | \$3,323,500 | | \$3,758,300 | | \$4,239,900 |
| 8. Administration and Overhead <u>2/</u> | | | <u>556,700</u> | | <u>1,191,300</u> | | <u>1,224,900</u> | | <u>1,412,500</u> | | <u>1,503,300</u> | | <u>1,696,000</u> |
| 9. Total Expenses | | | \$1,670,200 * | | \$3,699,400 | | \$3,947,000 | | \$4,736,000 | | \$5,261,600 | | \$5,935,900 |

Notes:

1/ Compressor station operation and maintenance expense for 1957/58 computed on basis of \$4/installed H.P. for centrifugal stations and \$8 installed H.P. for reciprocating.

2/ Administration and overhead figured as follows: 1957/58 - 50%, 1958/59 - 47.5%, 1959/60 - 45%, 1960/61 - 42.5%, 1961/62 - 40%, 1962/63 - 40%.

ESTIMATED GAS SALES AND REVENUE

Schedule 3

Plan 2

PLAN 2

| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|---|----------------------------|---------------|---------------|---------------|---------------|---------------|
| <u>Winnipeg and West</u> | | | | | | |
| <u>Requirements - MCF</u> | | | | | | |
| Saskatchewan Power Corporation | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| Plains Western Gas & Electric Company | 931,180 | 1,104,103 | 1,261,858 | 1,401,153 | 1,538,860 | 1,656,240 |
| Manitoba Power Corporation | - | 1,000,000 | 1,240,000 | 2,100,000 | 3,100,000 | - |
| Intercity Gas Company | 1,015,390 | 1,092,425 | 1,166,650 | 1,238,197 | 1,320,602 | 1,396,009 |
| Winnipeg & Central Gas Company | 5,484,000 | 6,665,000 | 7,950,000 | 8,404,000 | 9,531,000 | 9,531,000 |
| Total | 10,724,670 | 13,849,128 | 16,299,608 | 18,344,450 | 21,385,262 | 19,171,549 |
| <u>Revenue</u> | | | | | | |
| Saskatchewan Power Corporation | \$ 690,467 | \$ 835,830 | \$ 981,192 | \$ 1,090,228 | \$ 1,235,590 | \$ 1,380,952 |
| Plains Western Gas & Electric Company | 252,853 | 373,504 | 437,476 | 489,132 | 539,200 | 579,450 |
| Manitoba Power Corporation | - | 250,000 | 310,000 | 420,000 | 620,000 | - |
| Intercity Gas Company | 313,881 | 337,815 | 360,865 | 457,255 | 488,569 | 517,223 |
| Winnipeg & Central Gas Company | 1,314,445 | 1,828,025 | 2,257,675 | 2,746,100 | 3,173,675 | 3,173,675 |
| Total | \$ 2,571,646 | \$ 3,625,174 | \$ 4,347,238 | \$ 5,202,715 | \$ 6,057,334 | \$ 6,651,300 |
| <u>East of Winnipeg</u> | | | | | | |
| <u>Requirements - MCF</u> | | | | | | |
| Northern Ontario Natural Gas Company Limited | | | | | | |
| Western Ontario Zone | 6,350,000 ^{1/} | 9,511,450 | 9,343,231 | 9,309,000 | 9,951,000 | 10,593,000 |
| Northern Ontario Zone | - | 11,240,975 | 15,083,886 | 19,883,000 | 21,625,000 | 23,238,000 |
| Subtotal | 6,350,000 | 20,752,425 | 24,427,117 | 29,192,000 | 31,576,000 | 33,831,000 |
| Barrie, Orillia, etc. | - | 380,197 | 590,084 | 721,428 | 919,656 | 1,042,823 |
| The Consumers' Gas Company of Toronto | - | 25,595,600 | 31,025,000 | 35,678,800 | 43,435,000 | 51,191,300 |
| Union Gas Company of Canada, Limited | - | 3,932,406 | 15,252,280 | 17,400,000 | 20,800,000 | 23,800,000 |
| The Grimsby Natural Gas Company, Limited | - | 111,408 | 119,731 | 128,023 | 136,584 | 144,970 |
| Dominion Natural Gas Company, Limited | - | 300,000 | 500,000 | 600,000 | 700,000 | 780,000 |
| Lakeland Natural Gas Limited | - | 1,397,538 | 2,344,141 | 2,857,799 | 3,734,219 | 3,951,319 |
| Lake Shore Group | - | 2,749,141 | 2,978,063 | 3,400,000 | 3,797,000 | 3,967,000 |
| Interprovincial Utilities Limited | - | 8,005,554 | 6,366,698 | 6,313,755 | 6,730,144 | 8,383,332 |
| Quebec Natural Gas Corporation | 14,708,247 | 24,126,603 | 27,909,736 | 37,449,095 | 36,832,695 | 40,392,707 |
| Total | 21,058,247 | 87,350,872 | 111,512,850 | 133,740,300 | 148,661,298 | 167,484,451 |
| Total Requirements in MCF - East and West of Winnipeg | 31,782,917 | 101,200,000 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 |
| <u>Revenue</u> | | | | | | |
| Northern Ontario Natural Gas Company Limited | | | | | | |
| Western Ontario Zone | \$ 2,024,780 ^{1/} | \$ 3,037,997 | \$ 3,074,187 | \$ 3,149,740 | \$ 3,395,850 | \$ 3,644,880 |
| Northern Ontario Zone | - | 4,469,498 | 6,149,123 | 8,275,900 | 9,079,000 | 9,824,000 |
| Subtotal | 2,024,780 | 7,507,495 | 9,223,310 | 11,425,640 | 12,474,850 | 13,468,880 |
| Barrie, Orillia, etc. | - | 202,265 | 313,925 | 383,800 | 597,776 | 677,835 |
| The Consumers' Gas Company of Toronto | - | 11,560,250 | 14,023,632 | 16,178,240 | 19,706,790 | 23,267,370 |
| Union Gas Company of Canada, Limited | - | 1,180,055 | 5,832,527 | 6,786,000 | 8,112,000 | 9,282,000 |
| The Grimsby Natural Gas Company, Limited | - | 59,269 | 63,697 | 88,108 | 88,780 | 94,231 |
| Dominion Natural Gas Company, Limited | - | 159,600 | 266,000 | 319,200 | 455,000 | 507,000 |
| Lakeland Natural Gas Limited | - | 655,601 | 1,097,142 | 1,336,080 | 1,747,476 | 1,851,996 |
| Lake Shore Group | - | 1,123,538 | 1,434,331 | 1,677,455 | 1,873,941 | 1,976,451 |
| Interprovincial Utilities Limited | - | 3,097,463 | 2,716,742 | 2,769,923 | 3,053,729 | 3,757,733 |
| Quebec Natural Gas Corporation | 6,936,652 | 9,550,641 | 11,953,891 | 16,040,056 | 16,292,906 | 17,795,648 |
| Total | \$ 8,961,432 | \$ 35,096,177 | \$ 46,925,197 | \$ 56,284,502 | \$ 64,403,248 | \$ 72,679,144 |
| Total Revenue - East and West of Winnipeg | \$11,533,078 | \$ 38,721,351 | \$ 51,272,405 | \$ 62,187,217 | \$ 70,460,282 | \$ 78,330,444 |

^{1/} Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1, 1958.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS PURCHASE REQUIREMENTS (MMCF) AND COST OF GAS PURCHASED

PLAN 2

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| Gas Purchased for Sale | | | | | | |
| From Producers | 18,383 | 101,200 | 127,812 | 152,086 | 170,047 | 186,656 |
| From Others (2) | 13,400 | - | - | - | - | - |
| Subtotal | 31,783 | 101,200 | 127,812 | 152,086 | 170,047 | 186,656 |
| Gas for Compressor Fuel | 182 | 2,637 | 4,123 | 6,775 | 8,812 | 11,206 |
| Subtotal | 31,965 | 103,837 | 131,935 | 158,861 | 178,859 | 197,862 |
| Losses 1% | 319 | 1,038 | 1,319 | 1,589 | 1,789 | 1,979 |
| Subtotal | 32,284 | 104,875 | 133,254 | 160,450 | 180,648 | 199,841 |
| Gas Purchased for | | | | | | |
| Cleaning and purging (15 from others) (2) | 217 | - | - | - | - | - |
| Filling the line (84 from others) (2) | 2,357 | - | - | - | - | - |
| Total Purchased Gas | 34,858 | 104,875 | 133,254 | 160,450 | 180,648 | 199,841 |
| Cost of Gas Purchased - ¢ per Mcf | | | | | | |
| From Producers | | | | | | |
| Cost of Gas | 10.22916 | 10.44227 | 10.69800 | 10.95372 | 11.20945 | 11.46518 |
| Transportation cost | 4.09167 | 4.09167 | 4.09167 | 4.09167 | 4.09167 | 4.09167 |
| Delivered cost of gas (1) | 14.32083 | 14.53394 | 14.78967 | 15.04539 | 15.30112 | 15.55685 |
| From Others | 38.69000 | | | | | |
| Cost of Gas Purchased for | | | | | | |
| Sales (operating expenses) | | | | | | |
| From Producers | \$2,685,644 | \$15,242,604 | \$19,707,975 | \$24,140,178 | \$27,641,014 | \$31,088,965 |
| From Others (2) | 5,236,073 | - | - | - | - | - |
| Cleaning and purging (construction cost) | | | | | | |
| From Producers | 28,498 | - | - | - | - | - |
| From Others (2) | 5,839 | - | - | - | - | - |
| Filling the line (inventory gas) | | | | | | |
| From Producers | 325,512 | - | - | - | - | - |
| From Others (2) | 32,696 | - | - | - | - | - |
| Total Cost of Gas Purchased | \$8,314,262 | \$15,242,604 | \$19,707,975 | \$24,140,178 | \$27,641,014 | \$31,088,965 |
| Requirements MMcf | | | | | | |
| Winnipeg and West | 10,725 | 13,849 | 16,300 | 18,345 | 21,385 | 19,172 |
| East of Winnipeg (excludes "From Others") | 5,350 | 87,351 | 111,512 | 133,741 | 148,662 | 167,484 |
| Total | 17,075 | 101,200 | 127,812 | 152,086 | 170,047 | 186,656 |
| % of Requirements - each year | | | | | | |
| Winnipeg and West | 62.81 | 13.68 | 12.75 | 12.06 | 12.58 | 10.27 |
| East of Winnipeg | 37.19 | 86.32 | 87.25 | 87.94 | 87.42 | 89.73 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Allocation of Total Purchased MMcf | | | | | | |
| (excluding "From Others" (2)) | | | | | | |
| based on requirements in each year | | | | | | |
| Winnipeg and West | 13,331 | 14,347 | 16,990 | 19,350 | 22,726 | 20,524 |
| East of Winnipeg | 7,804 | 90,528 | 116,264 | 141,100 | 157,922 | 179,317 |
| Total | 21,225 | 104,875 | 133,254 | 160,450 | 180,648 | 199,841 |

(1) At Saskatchewan Gate.

(2) For Montreal and Sheridan Lines.

TRANS-CANADA PIPE LINES LIMITED

DATA RE CROWN CORPORATION SECTION RENTALS AND PURCHASE PRICE - PLAN 1

1. Design capacity east of Winnipeg @ 14.73 psia MMcf per day; 2/3 of capacity for one year equals 74,922 MMCF.
2. Cost of leased facilities equals \$54,829,750 (first year only); 4-1/2% equals \$2,467,339; rental payment per Mcf equals \$.03338.
3. Cost of leased facilities equal \$120,004,886 (after first year); 4-1/2% equals \$5,400,220; rental payment per Mcf equals \$.07208.

12 Months Ended: (\$000s Omitted)

10-31-58 10-31-59 10-31-60 10-31-61 10-31-62 10-31-63

Given Or Assumed The Following:

Annual Volumes delivered East of Winnipeg @ 14.73 psia MMcf
Annual Amount of Mcf Rental Payments (@ \$.03338 per Mcf for first year and \$.07208 thereafter)
Capital Cost per Agreement as of Beginning of Each Year

| | | | | | |
|--------|---------|---------|---------|---------|---------|
| 7,894 | 90,528 | 116,264 | 141,100 | 157,222 | 179,317 |
| 264 | 6,525 | 8,380 | 10,170 | 11,383 | 12,925 |
| 54,830 | 117,817 | 120,005 | 126,172 | 131,029 | 135,412 |

(A) Calculation of Duration of 1% Payment Per Section 6 (b) (iv) of Agreement dated 11/21/55 with Government of Canada (Disregarding the Calendar Year Element) 7% Per Annum on Capital Costs

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 3,838 | 8,247 | 8,400 | 8,832 | 9,172 | 9,479 |
|-------|-------|-------|-------|-------|-------|

Less:

Annual Amount of Rental Payment - Based upon Mcf
- Based on 1% of \$120,005

| | | | | | |
|-----|-------|-------|--------|--------|--------|
| 264 | 6,525 | 8,380 | 10,170 | 11,383 | 12,925 |
| - | - | - | - | 1,200 | - |
| 264 | 6,525 | 8,380 | 10,170 | 12,583 | 12,925 |

Total

| | | | | | |
|-----|-------|-------|--------|--------|--------|
| 264 | 6,525 | 8,380 | 10,170 | 12,583 | 12,925 |
|-----|-------|-------|--------|--------|--------|

(1) Deficiency - Per Year

| | | | | | |
|-------|-------|----|---------|---------|---------|
| 3,574 | 1,722 | 20 | (1,338) | (3,411) | (3,446) |
|-------|-------|----|---------|---------|---------|

(2) - Cumulative (Line 4 Preceding Year Plus Line 1)

| | | | | | |
|-------|-------|-------|-------|-------|---------|
| 3,574 | 5,296 | 5,441 | 4,293 | 1,079 | (2,210) |
|-------|-------|-------|-------|-------|---------|

(3) Interest @ 3-1/2% on Deficiency at End of Preceding Year

| | | | | | |
|---|-----|-----|-----|-----|----|
| - | 125 | 190 | 197 | 157 | 43 |
|---|-----|-----|-----|-----|----|

(4) Total Net Deficiency

| | | | | | |
|-------|-------|-------|-------|-------|---------|
| 3,574 | 5,421 | 5,631 | 4,490 | 1,236 | (2,167) |
|-------|-------|-------|-------|-------|---------|

(B) Calculation of Purchase Price From Time to Time

| | Under Section 7 or 8 (a) of Agreement | | | | | Under Section 8 (b) (1) of Agreement | | | | | |
|----------------|---------------------------------------|-----------------------------------|----------------------------|--------------------------|----------------|--------------------------------------|--|--------------|------------|-----------------------------|----------------|
| | Rental Payments from (A) above * | 3-1/2% P/A Interest Semi-annually | Amortization Semi-annually | Additions As Of Year End | Purchase Price | 3-1/2% P/A Amortization | Interest @ 3-1/2% on Amortization Cumulative | Amortization | | Property Costs Time To Time | Purchase Price |
| | | | | | | | | Per Year | Cumulative | | |
| As of 10-31-57 | - | - | - | 54,830 | 54,830 | - | - | - | - | 54,830 | 54,830 |
| 4-30-58 | 132 | 960 | (828) | - | 55,658 | - | - | - | - | - | - |
| 10-31-58 | 132 | 974 | (842) | 62,987 | 119,487 | 1,919 | - | 1,919 | 1,919 | 117,817 | 115,898 |
| 4-30-59 | 3,262 | 2,091 | 1,171 | - | 118,316 | - | - | - | - | - | - |
| 10-31-59 | 3,263 | 2,071 | 1,192 | 2,188 | 119,312 | 4,123 | 67 | 4,190 | 6,109 | 120,005 | 113,896 |
| 4-30-60 | 4,190 | 2,088 | 2,102 | - | 117,210 | - | - | - | - | - | - |
| 10-31-60 | 4,190 | 2,051 | 2,139 | 6,167 | 121,238 | 4,200 | 214 | 4,414 | 10,523 | 126,172 | 115,649 |
| 4-30-61 | 5,085 | 2,122 | 2,963 | - | 118,275 | - | - | - | - | - | - |
| 10-31-61 | 5,085 | 2,070 | 3,015 | 4,857 | 120,117 | 4,416 | 368 | 4,784 | 15,307 | 131,029 | 115,722 |
| 4-30-62 | 6,291 | 2,102 | 4,189 | - | 115,928 | - | - | - | - | - | - |
| 10-31-62 | 6,292 | 2,029 | 4,263 | 4,383 | 116,048 | 4,586 | 536 | 5,122 | 20,429 | 135,412 | 114,983 |
| 4-30-63 | 6,462 | 2,031 | 4,431 | - | 111,617 | - | - | - | - | - | - |
| 10-31-63 | 6,463 | 1,953 | 4,510 | - | 107,107 | 4,740 | 715 | 5,455 | 25,884 | 135,412 | 109,528 |

Under Section 8 (b) (2) of Agreement

Total Purchase Price At Any Time (70% of \$120,005)

84,035

* The aggregate of each six months rental will probably vary. However, it is assumed here they will not.

TRANS-CANADA PIPE LINES LIMITED

Income Account Projection

1. Basis of latest Sales Volumes and Rates inside Canada - and without regard to limitations on Gas Volumes in Alberta.
2. Crown Company Facilities Not Purchased.
3. Emerson Lateral Not Constructed.

PLAN 2

Income Account Projection - 12 Months Ended:

(\$000 Omitted)

| | <u>10-31-56</u> | <u>10-31-57</u> | <u>10-31-58</u> | <u>10-31-59</u> | <u>10-31-60</u> | <u>10-31-61</u> | <u>10-31-62</u> | <u>10-31-63</u> |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Operating Revenues | | | | | | | | |
| Winnipeg and West | \$ - | \$ - | \$ 2,572 | \$ 3,625 | \$ 4,347 | \$ 5,203 | \$ 6,057 | \$ 5,651 |
| East of Winnipeg | - | - | 8,961 | 35,096 | 46,925 | 56,984 | 64,403 | 72,679 |
| Total Revenues | - | - | 11,533 | 38,721 | 51,272 | 62,187 | 70,460 | 78,330 |
| (14.73 psia Mcf Unit Cost of Gas at Alberta Border) | | | | | | | | |
| Cost of Gas Purchased | - | - | 7,922 | 15,243 | 19,708 | 24,140 | 27,641 | 31,089 |
| Operations and Maintenance | - | - | 1,670 | 3,699 | 3,947 | 4,736 | 5,262 | 5,936 |
| Rentals - Niagara Line | - | 75 | 250 | - | - | - | - | - |
| - Based on Mcf @ 3.338¢ for first year and 7.208¢ thereafter and on Net Profits, per formula | - | - | 264 | 6,525 | 8,380 | 10,170 | 12,583 | 12,925 |
| Taxes - General | - | 87 | 577 | 1,164 | 1,186 | 1,265 | 1,311 | 1,365 |
| Total | - | 162 | 10,683 | 26,631 | 33,221 | 40,311 | 46,797 | 51,315 |
| Balance Before Depreciation and Income Taxes | - | (162) | 850 | 12,070 | 18,051 | 21,876 | 23,663 | 27,015 |
| Depreciation Provision | - | - | 1,990 | 8,543 | 8,835 | 9,190 | 9,465 | 9,622 |
| Gross Income Before Income Taxes | - | (162) | (1,140) | 3,547 | 9,216 | 12,686 | 14,198 | 17,393 |
| Taxes - Income | - | - | - | - | - | - | - | - |
| Gross Income | - | (162) | (1,140) | 3,547 | 9,216 | 12,686 | 14,198 | 17,393 |
| Interest - First Mortgage Bonds - Public | - | 662 | 3,958 | 6,830 | 6,830 | 6,816 | 6,549 | 6,212 |
| - Subordinated Debentures - Public | - | 2,890 | 4,335 | 4,335 | 4,335 | 4,335 | 4,335 | 4,335 |
| - First Mortgage Bonds - Crown Corporation | 202 | 694 | - | - | - | - | - | - |
| - Subordinated Income Notes - Founders | - | - | - | - | - | - | 609 | 612 |
| Amortization of Debt Discount and Expense | - | 91 | 202 | 202 | 202 | 202 | 202 | 202 |
| Interest During Construction (Credit) | (679) | (4,099) | (7,804) | (53) | (233) | (116) | (155) | - |
| Fixed Charges | (477) | 238 | 691 | 11,314 | 11,134 | 11,237 | 11,540 | 11,361 |
| Net Income | 477 | (400) | (1,831) | (7,767) | (1,918) | 1,449 | 2,658 | 6,032 |
| Earned Surplus - Beginning of Year | - | 477 | 77 | (1,754) | (9,521) | (11,439) | (9,990) | (7,332) |
| - End of Year | 477 | 77 | (1,754) | (9,521) | (11,439) | (9,990) | (7,332) | (1,300) |
| Common Shares Outstanding - End of Period | | 5,823,184 | 5,823,184 | 5,823,184 | 5,823,184 | 5,823,184 | 5,823,184 | 5,823,184 |
| Earnings Per Common Share (Commencing with first year of full operation) | | | | - | - | \$.25 | \$.46 | \$1.04 |

TRANS-CANADA PIPE LINES LIMITED

CASH FLOW PROJECTION - PLAN 2
(\$000 Omitted)

| Cash Flow Projection - 12 Months Ended | 10-31-56 ⁽¹⁾ | 10-31-57 | 10-31-58 | 10-31-59 | 10-31-60 | 10-31-61 | 10-31-62 | 10-31-63 |
|--|-------------------------|-----------|----------|----------|----------|----------|----------|----------|
| Net Income | 477 | (400) | (1,231) | (7,767) | (1,918) | 1,449 | 2,658 | 6,032 |
| Add: | | | | | | | | |
| Depreciation | - | - | 1,990 | 8,543 | 8,835 | 9,190 | 9,465 | 9,622 |
| Amortization of Debt Discount and Expense | - | 91 | 202 | 202 | 202 | 202 | 202 | 202 |
| Income Tax Accrual | - | - | - | - | - | - | - | - |
| Total Cash Operations | 477 | (309) | 361 | 978 | 7,119 | 10,841 | 12,325 | 15,856 |
| Less: | | | | | | | | |
| Income Tax Paid | - | - | - | - | - | - | - | - |
| Retirement of First Mortgage Bonds - Public | - | - | - | - | - | 3,180 | 6,360 | 6,360 |
| Retirement of First Mortgage Bonds - Crown Corporation | - | - | - | - | - | - | - | - |
| Retirement of Subordinated Debentures | - | - | - | - | - | - | - | - |
| Common Dividends | - | - | - | - | - | - | - | - |
| Total Recurring Outgo | - | - | - | - | - | 3,180 | 6,360 | 6,360 |
| Balance - Plus (Minus) Cash | 477 | (309) | 361 | 978 | 7,119 | 7,661 | 5,965 | 9,496 |
| Add: | | | | | | | | |
| Construction | 33,662 | 107,129 | 98,208 | 3,091 | 13,572 | 6,723 | 8,990 | - |
| Preliminary Construction Costs Paid at 6/7/56 included in Construction above | (7,974) | - | - | - | - | - | - | - |
| Loan to Western Pipe Lines to Redeem Debentures, and Repayment | - | 5,350 | (5,350) | - | - | - | - | - |
| Acquisition of Niagara Line | - | - | 4,600 | - | - | - | - | - |
| Materials and Supplies (Operations and Maintenance) | - | 2,000 | 2,000 | - | - | - | - | - |
| Materials and Supplies (Gas for filling line) | - | - | 249 | - | - | - | - | - |
| Bond Interest Accruals in excess of Payments | (202) | (2,887) | (4,705) | (2,168) | - | 14 | 28 | 29 |
| Total Other Requirements | 25,486 | 111,592 | 25,002 | 923 | 13,572 | 6,737 | 9,018 | 29 |
| Balance - Plus (Minus) Cash | (25,009) | (111,901) | (24,641) | 55 | (6,453) | 924 | (3,053) | 9,467 |
| Add: | | | | | | | | |
| Outside Funds - First Mortgage Bonds - Public | - | 45,000 | 84,000 | - | - | - | - | - |
| - Subordinated Debentures - Public | - | 75,000 | - | - | - | - | - | - |
| - First Mortgage Bonds - Crown Corporation | 33,750 | (33,750) | - | - | - | - | - | - |
| - Subordinated Income Notes - Founders | - | - | - | 3,283 | 6,473 | 1,372 | - | - |
| - Common Stock (2) | - | 38,660 | - | - | - | - | - | - |
| (Financing Charges) - First Mortgage Bonds - Public | - | (693) | (1,217) | - | - | - | - | - |
| - Subordinated Debentures | - | (3,373) | - | - | - | - | - | - |
| - Common Stock | - | (1,687) | - | - | - | - | - | - |
| Prepaid Interest on Subordinated Debentures | - | (7,948) | - | - | - | - | - | - |
| Total Outside Funds | 33,750 | 111,209 | 82,783 | 3,283 | 6,473 | 1,372 | - | - |
| Balance - Plus (Minus) Cash | 8,741 | (692) | (11,858) | 3,338 | 20 | 2,296 | (3,053) | 9,467 |
| Cash - Beginning of Period (3) | 6,710 | 15,451 | 14,759 | 2,901 | 6,239 | 6,259 | 8,555 | 5,502 |
| - End of Period (3) | 15,451 | 14,759 | 2,901 | 6,239 | 6,259 | 8,555 | 5,502 | 14,969 |

(1) From June 7 through October 31, 1956

(2) 1,928,184 shares from Founders @ \$8 approx. equals \$15,411,464
3,750,000 shares with Subord. Debs. @ \$10 equals 37,500,000
145,000 shares from Subscription and Options
Exercised @ \$8 equals 1,160,000

5,823,184

\$54,071,464

(3) Includes Government Securities

| | | | | | |
|---------|---------|---------|---------|---------|---------|
| 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
|---------|---------|---------|---------|---------|---------|

TRANS-CANADA PIPE LINES LIMITED

INTEREST AND DEBT SERVICE COVERAGE

PLAN 2

| | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> | |
|---|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| 1. Times Coverage of Interest on First Mortgage Bonds, by Gross Income before Dominion Income Tax <u>1/</u> | .519 | 1.349 | 1.861 | 2.168 | 2.800 | |
| 2. Times Coverage of All Interest Paid, exclusive of Interest on Subordinated Income Notes, by Gross Income Before Dominion Income Tax <u>1/</u> | .318 | .825 | 1.138 | 1.304 | 1.649 | |
| 3. Times Coverage of Total Debt Service Requirements (All Interest Paid, exclusive of Interest on Subordinated Income Notes, plus Mortgage Bond and Debenture Retirement Provisions), by Gross Income Before Depreciation <u>2/</u> | 1.083 | 1.617 | 1.526 | 1.372 | 1.598 | |
| | <u>At 10/31/58</u> | <u>At 10/31/59</u> | <u>At 10/31/60</u> | <u>At 10/31/61</u> | <u>At 10/31/62</u> | <u>At 10/31/63</u> |
| 4. Ratio of Mortgage Debt to Gross Property Account <u>3/</u> | 52.78% | 52.12% | 49.41% | 46.99% | 43.16% | 40.86% |
| 5. Ratio of Mortgage Debt to Net Property Account <u>3/</u> | 53.40% | 54.64% | 53.56% | 52.78% | 50.22% | 49.55% |
| 6. Ratio of Total Long-Term Debt (exclusive of Subordinated Income Notes) to Gross Property Account <u>3/</u> | 83.47% | 82.43% | 78.14% | 74.99% | 70.26% | 67.96% |
| 7. Ratio of Total Long-Term Debt (exclusive of Subordinated Income Notes) to Net Property Account <u>3/</u> | 84.45% | 86.40% | 84.70% | 84.25% | 81.74% | 82.40% |

1/ Data from Exhibit 8 FR, Schedule 6.

2/ Data from Exhibit 8 FR, Schedules 6 and 7.

3/ Data from Exhibit 8 FR, Schedule 8.

TRANS-CANADA PIPE LINES LIMITED

Revenue Details Based on December 1956
Study of Markets to be Served, Revised

APPENDIX B
To February 6, 1957 Review

MARCH, 1957



COMMONWEALTH SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

TRANS-CANADA PIPE LINES LIMITED

Revenue Details Based on December 1956
Study of Markets to be Served, Revised

APPENDIX B
To February 6, 1957 Review

MARCH, 1957



COMMONWEALTH SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

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| Requirements Mcf | 1 | 19 |
| Revenue | 2 | 20 |
| ANNUAL GAS SALES (MCF) AND REVENUE | | |
| Winnipeg and West Saskatchewan Power Corporation | 3 | 21 |
| Plains Western Gas & Electric Company | 4 | 22 |
| Manitoba Power Corporation | 5 | 23 |
| Intercity Gas Company | 6 | 24 |
| Winnipeg & Central Gas Company | 7 | 25 |
| East of Winnipeg | | |
| Northern Ontario Natural Gas Company Limited | | |
| Western Zone | 8 | 26 |
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| Barrie, Orillia, etc. | 10 | 28 |
| The Consumers' Gas Company of Toronto | 11 | 29 |
| Union Gas Company of Canada, Limited | 12 | 30 |
| The Grimsby Natural Gas Company, Limited | 13 | 31 |
| Dominion Natural Gas Company, Limited | 14 | 32 |
| Lakeland Natural Gas Limited | 15 | 33 |
| Lake Shore Group | 16 | 34 |
| Interprovincial Utilities Limited | 17 | 35 |
| Quebec Natural Gas Corporation | 18 | 36 |

TRANS-CANADA PIPE LINES LIMITEDESTIMATED GAS SALES AND REVENUE
BEFORE AND AFTER CURTAILMENTPLAN 1

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|---------------------|----------------|----------------|----------------|----------------|----------------|
| <u>Requirements Mcf</u> | | | | | | |
| <u>Winnipeg and West</u> | | | | | | |
| Saskatchewan Power Corporation | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| Plains Western Gas & Electric Company | 931,180 | 1,104,103 | 1,261,858 | 1,401,153 | 1,538,860 | 1,656,240 |
| Manitoba Power Corporation | - | 1,000,000 | 1,240,000 | 2,100,000 | 3,100,000 | - |
| Intercity Gas Company | 1,015,390 | 1,092,425 | 1,166,650 | 1,238,197 | 1,320,602 | 1,396,009 |
| Winnipeg & Central Gas Company | 5,484,000 | 6,665,000 | 7,956,000 | 8,400,000 | 9,531,000 | 9,531,000 |
| Total Winnipeg and West | 10,724,670 | 13,849,128 | 16,293,606 | 18,340,650 | 21,385,262 | 19,171,549 |
| <u>East of Winnipeg</u> | | | | | | |
| Northern Ontario Natural Gas Company Limited | | | | | | |
| Western Ontario Zone | 6,350,000 <u>1/</u> | 9,915,000 | 11,367,000 | 12,009,000 | 12,516,000 | 13,158,000 |
| Less Curtailment | - | - | 1,035,414 | 1,280,614 | 2,565,000 | 2,565,000 |
| Net | 6,350,000 | 9,915,000 | 10,331,586 | 10,728,386 | 9,951,000 | 10,593,000 |
| Northern Ontario Zone | - | 11,731,000 | 17,361,000 | 23,663,000 | 25,081,000 | 26,586,000 |
| Less Curtailment | - | - | 1,165,032 | 1,792,860 | 3,456,000 | 3,348,000 |
| Net | - | 11,731,000 | 16,195,968 | 21,870,140 | 21,625,000 | 23,238,000 |
| Subtotal | 6,350,000 | 21,646,000 | 26,527,554 | 32,598,526 | 31,576,000 | 33,831,000 |
| Barrie, Orillia, etc. | - | 380,197 | 590,084 | 721,428 | 919,656 | 1,042,823 |
| The Consumers' Gas Company of Toronto | - | 25,595,600 | 31,025,000 | 35,678,800 | 43,435,000 | 51,191,300 |
| Union Gas Company of Canada, Limited | - | 5,000,000 | 19,000,000 | 22,400,000 | 25,800,000 | 28,800,000 |
| Less Curtailment | - | - | 1,217,433 | 2,371,508 | 5,000,000 | 5,000,000 |
| Net | - | 5,000,000 | 17,082,567 | 20,028,492 | 20,800,000 | 23,800,000 |
| The Grimsby Natural Gas Company, Limited | - | 111,408 | 119,731 | 128,023 | 136,584 | 144,970 |
| Dominion Natural Gas Company, Limited | - | 300,000 | 500,000 | 600,000 | 700,000 | 780,000 |
| Lakeland Natural Gas Limited | - | 1,397,538 | 2,344,141 | 2,857,799 | 3,734,219 | 3,951,319 |
| Lake Shore Group | - | 3,047,000 | 3,493,000 | 3,762,000 | 3,940,000 | 4,057,000 |
| Less Curtailment | - | - | 263,455 | 171,697 | 143,000 | 90,000 |
| Net | - | 3,047,000 | 3,229,545 | 3,590,303 | 3,797,000 | 3,967,000 |
| Interprovincial Utilities Limited | - | 8,721,305 | 8,502,723 | 8,347,012 | 8,758,654 | 9,196,095 |
| Less Curtailment | - | - | 1,092,847 | 937,978 | 1,478,480 | 272,722 |
| Net | - | 8,721,305 | 7,409,876 | 7,409,034 | 7,280,174 | 8,923,296 |
| Quebec Natural Gas Corporation | - | 14,708,247 | 25,938,401 | 33,951,893 | 37,845,882 | 41,512,056 |
| Less Curtailment | - | - | 3,254,049 | 3,823,398 | 1,563,217 | 1,659,313 |
| Net | - | 14,708,247 | 22,684,352 | 30,128,495 | 36,282,665 | 39,852,743 |
| Total East of Winnipeg | 6,350,000 | 80,907,295 | 120,241,080 | 144,118,955 | 162,866,995 | 180,419,563 |
| Less Curtailment | - | - | 8,728,230 | 10,378,055 | 14,205,697 | 12,935,112 |
| Net East of Winnipeg | 6,350,000 | 80,907,295 | 111,512,850 | 133,740,900 | 148,661,298 | 167,484,451 |
| Total East and West of Winnipeg | 17,074,670 | 94,756,423 | 136,540,688 | 162,463,605 | 184,252,257 | 199,591,112 |
| Less Curtailment | - | - | 8,728,230 | 10,378,055 | 14,205,697 | 12,935,112 |
| Net Requirements East and West of Winnipeg | 17,074,670 | 94,756,423 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 |

1/ Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1, 1958.

TRANS-CANADA PIPE LINES LIMITEDESTIMATED GAS SALES AND REVENUE
BEFORE AND AFTER CURTAILMENTPLAN 1

| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--|-------------------------|--------------|--------------|--------------|--------------|--------------|
| <u>Revenue</u> | | | | | | |
| <u>Winnipeg and West</u> | | | | | | |
| Saskatchewan Power Corporation | \$ 690,467 | \$ 835,830 | \$ 981,192 | \$ 1,090,228 | \$ 1,235,590 | \$ 1,380,952 |
| Plains Western Gas & Electric Company | 252,853 | 373,504 | 437,476 | 489,132 | 539,200 | 579,450 |
| Manitoba Power Corporation | - | 250,000 | 310,000 | 420,000 | 620,000 | - |
| Intercity Gas Company | 313,881 | 337,815 | 360,865 | 457,255 | 488,569 | 517,223 |
| Winnipeg & Central Gas Company | 1,314,445 | 1,828,025 | 2,257,675 | 2,746,100 | 3,173,675 | 3,173,675 |
| Total Winnipeg and West | 2,571,646 | 3,625,174 | 4,347,208 | 5,202,715 | 6,057,034 | 5,651,300 |
| <u>East of Winnipeg</u> | | | | | | |
| Northern Ontario Natural Gas Company Limited | | | | | | |
| Western Ontario Zone | 2,024,780 ^{1/} | 3,138,780 | 3,581,550 | 3,824,740 | 4,037,100 | 4,286,130 |
| Less Curtailment | - | - | 255,542 | 320,228 | 641,250 | 641,250 |
| Net | 2,024,780 | 3,138,780 | 3,322,008 | 3,504,512 | 3,395,850 | 3,644,880 |
| Northern Ontario Zone | - | 4,613,900 | 6,822,600 | 9,390,900 | 10,099,000 | 10,812,000 |
| Less Curtailment | - | - | 344,518 | 528,970 | 1,020,000 | 988,000 |
| Net | - | 4,613,900 | 6,478,082 | 8,861,930 | 9,079,000 | 9,824,000 |
| Subtotal | 2,024,780 | 7,752,680 | 9,800,090 | 12,366,442 | 12,474,850 | 13,468,880 |
| Barrie, Orillia, etc. | - | 202,265 | 313,925 | 383,800 | 597,776 | 677,835 |
| The Consumers' Gas Company of Toronto | - | 11,560,250 | 14,023,632 | 16,178,240 | 19,706,790 | 23,267,370 |
| Union Gas Company of Canada, Limited | - | 1,500,000 | 6,960,000 | 8,286,000 | 9,612,000 | 10,782,000 |
| Less Curtailment | - | - | 576,760 | 711,618 | 1,500,000 | 1,500,000 |
| Net | - | 1,500,000 | 6,383,240 | 7,574,382 | 8,112,000 | 9,282,000 |
| The Grimsby Natural Gas Company, Limited | - | 59,269 | 63,697 | 68,108 | 88,780 | 94,231 |
| Dominion Natural Gas Company, Limited | - | 159,600 | 266,000 | 319,200 | 455,000 | 507,000 |
| Lakeland Natural Gas Limited | - | 655,601 | 1,097,142 | 1,336,080 | 1,747,476 | 1,851,996 |
| Lake Shore Group | - | 1,212,803 | 1,589,245 | 1,786,055 | 1,916,841 | 2,003,451 |
| Less Curtailment | - | - | 79,247 | 51,521 | 42,900 | 27,000 |
| Net | - | 1,212,803 | 1,509,998 | 1,734,534 | 1,873,941 | 1,976,451 |
| Interprovincial Utilities Limited | - | 3,311,965 | 3,359,349 | 3,384,203 | 3,716,160 | 4,059,190 |
| Less Curtailment | - | - | 328,726 | 281,459 | 458,461 | 101,439 |
| Net | - | 3,311,965 | 3,030,623 | 3,102,744 | 3,257,699 | 3,957,751 |
| Quebec Natural Gas Corporation | - | 5,892,021 | 10,093,615 | 13,771,628 | 16,185,725 | 17,977,632 |
| Less Curtailment | - | - | 978,811 | 1,147,287 | 559,758 | 600,332 |
| Net | - | 5,892,021 | 9,114,804 | 12,624,341 | 15,625,967 | 17,377,300 |
| Total East of Winnipeg | 2,024,780 | 32,306,454 | 48,170,755 | 58,728,954 | 68,162,648 | 76,318,835 |
| Less Curtailment | - | - | 2,567,604 | 3,041,083 | 4,222,369 | 3,858,021 |
| Net East of Winnipeg | 2,024,780 | 32,306,454 | 45,603,151 | 55,687,871 | 63,940,279 | 72,460,814 |
| Total East and West of Winnipeg | 4,596,426 | 35,931,628 | 52,517,963 | 63,931,669 | 74,219,682 | 81,970,135 |
| Less Curtailment | - | - | 2,567,604 | 3,041,083 | 4,222,369 | 3,858,021 |
| Net Revenue East and West of Winnipeg | \$4,596,426 | \$35,931,628 | \$49,950,359 | \$60,890,586 | \$69,997,313 | \$78,112,114 |

^{1/} Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1, 1958.

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| SASKATCHEWAN POWER CORPORATION | | 1956/57 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--------------------------------|-----------------|---------|------------|------------|------------|--------------|--------------|--------------|
| Rate | | | | | | | | |
| <u>General Firm</u> | | | | | | | | |
| SD | | - | 9,500 | 11,500 | 13,500 | 15,000 | 17,000 | 19,000 |
| | DCQ - Mcf | - | \$ 12.00 | \$ 12.00 | \$ 12.00 | \$ 12.00 | \$ 12.00 | \$ 12.00 |
| | Demand rate/Mcf | - | \$ 114,000 | \$ 138,000 | \$ 162,000 | \$ 180,000 | \$ 204,000 | \$ 228,000 |
| | Revenue | - | \$ | \$ | \$ | \$ | \$ | \$ |
| <u>Industrial Firm</u> | | | | | | | | |
| | DCQ - Mcf | - | - | - | - | - | - | - |
| | Demand rate | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| <u>Annual Mcf</u> | | | | | | | | |
| | Commodity rate | - | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| | Revenue | \$ | \$ 0.175 | \$ 0.175 | \$ 0.175 | \$ 0.175 | \$ 0.175 | \$ 0.175 |
| | | \$ | \$ 576,467 | \$ 697,830 | \$ 819,192 | \$ 910,228 | \$ 1,031,590 | \$ 1,152,952 |
| <u>Off peak Mcf</u> | | | | | | | | |
| | φ/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| <u>Excess gas Mcf</u> | | | | | | | | |
| | φ/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| <u>Total annual Mcf</u> | | | | | | | | |
| | Total revenue | - | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| | | \$ | \$ 690,467 | \$ 835,830 | \$ 981,192 | \$ 1,090,228 | \$ 1,235,590 | \$ 1,380,952 |

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| <u>PLAINS WESTERN GAS & ELECTRIC CO.</u> | | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Rate | General Firm | | | | | | |
| | Max. Day - Mcf | 4,115 | - | - | - | - | - |
| MD-2 | DCQ - Mcf | - | 5,486 | 6,735 | 7,626 | 8,463 | 9,070 |
| | Demand rate | - | \$ 22.80 | \$ 22.80 | \$ 22.80 | \$ 22.80 | \$ 22.80 |
| | Revenue | \$ - | \$ 125,081 | \$ 153,558 | \$ 173,873 | \$ 192,956 | \$ 206,796 |
| | <u>Annual Mcf</u> | 579,280 | 1,104,103 | 1,261,858 | 1,401,153 | 1,538,860 | 1,656,240 |
| | Development rate - Mcf | 0.315 | - | - | - | - | - |
| | Commodity rate - MD-2 | \$ - | \$ 0.225 | \$ 0.225 | \$ 0.225 | \$ 0.225 | \$ 0.225 |
| | Revenue | \$ 182,473 | \$ 248,423 | \$ 283,918 | \$ 315,259 | \$ 346,244 | \$ 372,654 |
| MXS | Excess Industrial | | | | | | |
| | Interruptible Mcf | 351,900 | - | - | - | - | - |
| | ¢/Mcf | \$ 0.20 | - | - | - | - | - |
| | Revenue | \$ 70,380 | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Total annual Mcf | 931,180 | 1,104,103 | 1,261,858 | 1,401,153 | 1,538,860 | 1,656,240 |
| | Total revenue | \$ 252,853 | \$ 373,504 | \$ 437,476 | \$ 489,132 | \$ 539,200 | \$ 579,450 |

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| MANITOBA POWER CORPORATION - Electric Plant | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|---|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <u>Firm Gas</u> | | | | | | | | |
| Special Contract Max. Day | | - | - | 20,000 | 40,000 | - | - | - |
| Con-tract Annual Mcf | | - | - | 1,000,000 | 1,240,000 | - | - | - |
| Rate Commodity rate | | \$ - | \$ - | \$ 0.25 | \$ 0.25 | \$ - | \$ - | \$ - |
| Revenue | | \$ - | \$ - | \$ 250,000 | \$ 310,000 | \$ - | \$ - | \$ - |
| <u>Special Excess gas Mcf</u> | | | | | | | | |
| Con-tract ϕ /Mcf | | - | - | - | - | 2,100,000 | 3,100,000 | - |
| Rate Revenue | | \$ - | \$ - | \$ - | \$ - | \$ 0.20 | \$ 0.20 | \$ - |
| | | \$ - | \$ - | \$ - | \$ - | \$ 420,000 | \$ 620,000 | \$ - |
| <u>Total annual Mcf</u> | | | | | | | | |
| Total revenue | | \$ - | \$ - | \$ 1,000,000 | \$ 1,240,000 | \$ 2,100,000 | \$ 3,100,000 | \$ - |
| | | \$ - | \$ - | \$ 250,000 | \$ 310,000 | \$ 420,000 | \$ 620,000 | \$ - |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| <u>INTERCITY GAS COMPANY</u> | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|------------------------------|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Rate | | | | | | | | |
| <u>General Firm</u> | | | | | | | | |
| MSGs | Mcf Max. Day | - | 7,390 | 8,027 | 8,578 | 9,153 | 9,648 | 9,892 |
| <u>Industrial Firm</u> | | | | | | | | |
| | DCQ - Mcf | - | - | - | - | - | - | - |
| | Demand rate | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| <u>Annual Mcf</u> | | | | | | | | |
| | Development rate - Mcf | - | 923,590 | 995,525 | 1,064,650 | 1,136,197 | 1,218,602 | 1,294,009 |
| | Commodity rate | \$ | \$ 0.315 | \$ 0.315 | \$ 0.315 | \$ - | \$ - | \$ - |
| | Revenue | \$ | \$ - | \$ - | \$ - | \$ 0.38 | \$ 0.38 | \$ 0.38 |
| | | \$ | \$ 290,931 | \$ 313,590 | \$ 335,365 | \$ 431,755 | \$ 463,069 | \$ 491,723 |
| <u>Off peak Mcf</u> | | | | | | | | |
| | φ/Mcf | - | 91,800 | 96,900 | 102,000 | 102,000 | 102,000 | 102,000 |
| | Revenue | \$ | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 |
| | | \$ | \$ 22,950 | \$ 24,225 | \$ 25,500 | \$ 25,500 | \$ 25,500 | \$ 25,500 |
| <u>Excess gas Mcf</u> | | | | | | | | |
| | φ/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| <u>Total annual Mcf</u> | | | | | | | | |
| | Total revenue | \$ | \$ 1,015,390 | \$ 1,092,425 | \$ 1,166,650 | \$ 1,238,197 | \$ 1,320,602 | \$ 1,396,009 |
| | | \$ | \$ 313,881 | \$ 337,815 | \$ 360,865 | \$ 457,255 | \$ 488,569 | \$ 517,223 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| WINNIPEG & CENTRAL GAS COMPANY | | 1956/57 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--------------------------------|---------------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|
| General Firm | | | | | | | | |
| Rate | DCQ - Mcf | - | 9,600 | 17,800 | 25,500 | 33,800 | 41,400 | 41,400 |
| | Demand rate/Mcf | \$ - | \$ 22.80 | \$ 22.80 | \$ 22.80 | \$ 22.80 | \$ 22.80 | \$ 22.80 |
| | Revenue | - | \$ 218,500 | \$ 405,500 | \$ 581,000 | \$ 770,000 | \$ 944,000 | \$ 944,000 |
| Industrial Firm | | | | | | | | |
| MIF | DCQ - Mcf | - | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| | Demand rate | \$ - | \$ 17.04 | \$ 17.04 | \$ 17.04 | \$ 17.04 | \$ 17.04 | \$ 17.04 |
| | Revenue | - | \$ 85,200 | \$ 85,200 | \$ 85,200 | \$ 85,200 | \$ 85,200 | \$ 85,200 |
| Annual Mcf | | | | | | | | |
| MD | 90% Load Factor Mcf | - | 4,959,000 | - | - | - | - | - |
| | Community rate | \$ - | \$ 0.18 | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Revenue | - | \$ 892,620 | \$ - | \$ - | \$ - | \$ - | \$ - |
| 75% Load Factor Mcf | | | | | | | | |
| MD-1 | Commodity rate | - | - | 6,492,000 | 7,891,000 | - | - | - |
| | Revenue | \$ - | \$ - | \$ 0.20 | \$ 0.20 | \$ - | \$ - | \$ - |
| 50% Load Factor Mcf | | | | | | | | |
| MD-2 | Commodity rate | - | - | - | - | 8,404,000 | 9,531,000 | 9,531,000 |
| | Revenue | \$ - | \$ - | \$ - | \$ - | \$ 0.225 | \$ 0.225 | \$ 0.225 |
| | Additional Mcf | - | 525,000 | 173,000 | 59,000 | - | - | - |
| Special Rate | Additional Gas rate | \$ - | \$ 0.225 | \$ 0.225 | \$ 0.225 | \$ - | \$ - | \$ - |
| | Revenue | - | \$ 118,125 | \$ 38,925 | \$ 13,275 | \$ - | \$ - | \$ - |
| Total annual Mcf | | - | 5,484,000 | 6,665,000 | 7,950,000 | 8,404,000 | 9,531,000 | 9,531,000 |
| | Total revenue | \$ - | \$ 1,314,445 | \$ 1,828,025 | \$ 2,257,675 | \$ 2,746,100 | \$ 3,173,675 | \$ 3,173,675 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

NORTHERN ONTARIO NATURAL GAS CO.

WESTERN ZONE

| Rate | | 1956/57 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-------------------------|---------------------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|
| <u>General Firm</u> | | | | | | | | |
| WD-1 | DCQ - Mcf | - | 7,800 | 9,500 | 11,100 | 12,700 | 14,300 | 15,900 |
| | Demand rate/Mcf | \$ - | \$ 34.80 | \$ 34.80 | \$ 34.80 | \$ 34.80 | \$ 34.80 | \$ 34.80 |
| | Revenue | \$ - | \$ 271,440 | \$ 330,600 | \$ 386,280 | \$ 441,960 | \$ 497,640 | \$ 553,320 |
| <u>Industrial Firm</u> | | | | | | | | |
| WIF | DCQ - Mcf | - | 5,000 | 10,500 | 10,500 | 10,500 | 10,500 | 10,500 |
| | Demand rate/Mcf | \$ - | \$ 26.16 | \$ 26.16 | \$ 26.16 | \$ 26.16 | \$ 26.16 | \$ 26.16 |
| | Revenue | \$ - | \$ 130,800 | \$ 274,680 | \$ 274,680 | \$ 274,680 | \$ 274,680 | \$ 274,680 |
| | Additional Demand-Mcf | - | 3,200 | 5,000 | 5,400 | 5,800 | 6,200 | 6,600 |
| | Total Demand - Mcf | - | 16,000 | 25,000 | 27,000 | 29,000 | 31,000 | 33,000 |
| <u>Annual Mcf</u> | | | | | | | | |
| 1) General & Industrial | | | | | | | | |
| | Firm - Mcf | - | 3,832,000 | 6,200,000 | 6,696,000 | 7,192,000 | 7,688,000 | 8,184,000 |
| | Commodity rate | \$ - | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 |
| | Revenue | \$ - | \$ 958,000 | \$ 1,550,000 | \$ 1,674,000 | \$ 1,798,000 | \$ 1,922,000 | \$ 2,046,000 |
| 2) "Additional Demand" | | | | | | | | |
| Special | Gas - Mcf | - | 1,168,000 | 1,825,000 | 1,971,000 | 2,117,000 | 2,263,000 | 2,409,000 |
| Rate | Additional Gas rate | \$ - | \$ 0.28 | \$ 0.28 | \$ 0.29 | \$ 0.30 | \$ 0.31 | \$ 0.32 |
| | Revenue | \$ - | \$ 327,040 | \$ 511,000 | \$ 571,590 | \$ 635,100 | \$ 701,530 | \$ 770,880 |
| <u>Excess Gas</u> | | | | | | | | |
| WXS | Excess Load Demand-Mcf | - | 10,000 | 14,000 | 20,000 | 20,000 | 19,000 | 19,000 |
| | Annual use (135 days) Mcf | - | 1,350,000 | 1,890,000 | 2,700,000 | 2,700,000 | 2,565,000 | 2,565,000 |
| | ϕ /Mcf | \$ - | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 |
| | Revenue | \$ - | \$ 337,500 | \$ 472,500 | \$ 675,000 | \$ 675,000 | \$ 641,250 | \$ 641,250 |
| | Total annual Mcf | - | 6,350,000 | 9,915,000 | 11,367,000 | 12,009,000 | 12,516,000 | 13,158,000 |
| | Total revenue | \$ - | \$ 2,024,780 | \$ 3,138,780 | \$ 3,581,550 | \$ 3,824,740 | \$ 4,037,100 | \$ 4,286,130 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

NORTHERN ONTARIO NATURAL GAS CO.

NORTHERN ZONE

| Rate | 1956/57 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|---------------------------|---------|---------|-------------|-------------|-------------|--------------|--------------|
| <u>General Firm</u> | | | | | | | |
| ND-1 | - | - | 19,100 | 22,500 | 28,200 | 32,520 | 36,360 |
| DCQ - Mcf | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Demand rate/Mcf | - | - | 49.20 | 49.20 | 49.20 | 49.20 | 49.20 |
| Revenue | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| | - | - | 939,700 | \$1,107,000 | \$1,387,400 | \$1,600,000 | \$1,788,900 |
| <u>Industrial Firm</u> | | | | | | | |
| NIF | - | - | 3,300 | 11,500 | 19,000 | 19,000 | 19,000 |
| DCQ - Mcf | - | - | \$ | \$ | \$ | \$ | \$ |
| Demand rate | \$ | \$ | 36.84 | 36.84 | 36.84 | 36.84 | 36.84 |
| Revenue | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| | - | - | 121,600 | 423,700 | 700,000 | 700,000 | 700,000 |
| Additional Demand-Mcf | - | - | 5,600 | 8,500 | 11,800 | 12,880 | 13,840 |
| Total Demand - Mcf | - | - | 28,000 | 42,500 | 59,000 | 64,400 | 69,200 |
| <u>Annual Mcf</u> | | | | | | | |
| 1) General & Industrial | - | - | 7,392,000 | 11,220,500 | 15,576,000 | 16,923,800 | 18,186,400 |
| Firm - Mcf | - | - | \$ | \$ | \$ | \$ | \$ |
| Commodity rate | \$ | \$ | 0.295 | 0.295 | 0.295 | 0.295 | 0.295 |
| Revenue | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| | - | - | \$2,180,600 | \$3,310,000 | \$4,594,900 | \$4,992,500 | \$5,365,000 |
| 2) "Additional Demand" | - | - | 2,044,000 | 3,102,500 | 4,307,000 | 4,701,200 | 5,051,600 |
| Gas - Mcf | - | - | \$ | \$ | \$ | \$ | \$ |
| Additional Gas Rate | \$ | \$ | 0.34 | 0.35 | 0.37 | 0.38 | 0.39 |
| Revenue | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| | - | - | \$ 695,000 | \$1,085,900 | \$1,593,600 | \$1,786,500 | \$1,970,100 |
| <u>Excess Gas</u> | | | | | | | |
| NXS | - | - | 17,000 | 22,500 | 28,000 | 25,600 | 24,800 |
| Excess load demand-Mcf | - | - | 2,295,000 | 3,038,000 | 3,780,000 | 3,456,000 | 3,348,000 |
| Annual use (135 days) Mcf | - | - | \$ | \$ | \$ | \$ | \$ |
| φ/Mcf | \$ | \$ | 0.295 | 0.295 | 0.295 | 0.295 | 0.295 |
| Revenue | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| | - | - | \$ 677,000 | \$ 896,000 | \$1,115,000 | \$1,020,000 | \$ 988,000 |
| Total annual Mcf | - | - | 11,731,000 | 17,361,000 | 23,663,000 | 25,081,000 | 26,586,000 |
| Total revenue | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| | - | - | \$4,613,900 | \$6,822,600 | \$9,390,900 | \$10,099,000 | \$10,812,000 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <u>BARRIE - ORILLIA, ETC.</u> | | | | | | | |
| Rate | | | | | | | |
| CSGS | | | | | | | |
| General Firm | | | | | | | |
| Maximum Day - Mcf | - | - | 2,930 | 5,835 | 7,712 | 8,789 | 9,733 |
| Industrial Firm | | | | | | | |
| DCQ - Mcf | - | - | - | - | - | - | - |
| Demand rate | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| Annual Mcf | - | - | 380,197 | 590,084 | 721,428 | 919,656 | 1,042,823 |
| Commodity rate | \$ | \$ | \$ 0.532 | \$ 0.532 | \$ 0.532 | \$ 0.65 | \$ 0.65 |
| Revenue | \$ | \$ | \$ 202,265 | \$ 313,925 | \$ 383,800 | \$ 597,776 | \$ 677,835 |
| Off peak Mcf | - | - | - | - | - | - | - |
| ¢/Mcf | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| Excess gas Mcf | - | - | - | - | - | - | - |
| ¢/Mcf | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| Total annual Mcf | - | - | 380,197 | 590,084 | 721,428 | 919,656 | 1,042,823 |
| Total revenue | \$ | \$ | \$ 202,265 | \$ 313,925 | \$ 383,800 | \$ 597,776 | \$ 677,835 |

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| CONSUMERS GAS CO. OF TORONTO | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|------------------------------|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Rate CD-1 | General Firm | | | | | | | |
| | DCQ - Mcf | - | - | 64,350 | 76,860 | 85,500 | 100,350 | 113,400 |
| | Demand rate/Mcf | \$ - | \$ - | \$ 52.80 | \$ 52.80 | \$ 52.80 | \$ 52.80 | \$ 52.80 |
| | Revenue | \$ - | \$ - | \$3,397,680 | \$4,058,208 | \$4,514,400 | \$5,298,480 | \$5,987,520 |
| CTF | Industrial Firm | | | | | | | |
| | DCQ - Mcf | - | - | 7,150 | 8,540 | 9,500 | 11,150 | 12,600 |
| | Demand rate | \$ - | \$ - | \$ 39.60 | \$ 39.60 | \$ 39.60 | \$ 39.60 | \$ 39.60 |
| | Revenue | \$ - | \$ - | \$ 283,140 | \$ 338,184 | \$ 376,200 | \$ 441,540 | \$ 498,960 |
| | Additional Demand-Mcf | - | - | 11,000 | 14,600 | 20,000 | 28,500 | 39,000 |
| | Total Demand - Mcf | - | - | 82,500 | 100,000 | 115,000 | 140,000 | 165,000 |
| | Annual Mcf | - | - | 21,580,600 | 25,696,000 | 28,378,800 | 33,032,000 | 36,956,300 |
| | Commodity rate | \$ - | \$ - | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 |
| | Revenue | \$ - | \$ - | \$6,474,180 | \$7,708,800 | \$8,513,640 | \$9,909,600 | \$11,086,890 |
| Special Rate | Additional firm-Mcf | - | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,403,000 | 14,235,000 |
| | Additional Gas rate | \$ - | \$ - | \$ 0.35 | \$ 0.36 | \$ 0.38 | \$ 0.39 | \$ 0.40 |
| | Revenue | \$ - | \$ - | \$1,405,250 | \$1,918,440 | \$2,774,000 | \$4,057,170 | \$5,694,000 |
| | Excess gas Mcf | - | - | - | - | - | - | - |
| | ¢/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| | Total annual Mcf | - | - | 25,595,600 | 31,025,000 | 35,678,800 | 43,435,000 | 51,191,300 |
| | Total revenue | \$ - | \$ - | \$11,560,250 | \$14,023,632 | \$16,178,240 | \$19,706,790 | \$23,267,370 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| UNION GAS CO. OF CANADA | | | | | | | |
|---------------------------|---------|---------|-------------|-------------|-------------|-------------|--------------|
| Rate | 1956/57 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
| <u>General Firm</u> | | | | | | | |
| DCQ - Mcf | - | - | - | - | - | - | - |
| Demand rate/Mcf | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| <u>Industrial Firm</u> | | | | | | | |
| DCQ - Mcf | - | - | - | - | - | - | - |
| Demand rate | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| <u>Special</u> | | | | | | | |
| Con- | - | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| tract | \$ | \$ | \$ | \$ 0.39 | \$ 0.39 | \$ 0.39 | \$ 0.39 |
| Rate | \$ | \$ | \$ | \$5,460,000 | \$6,786,000 | \$8,112,000 | \$9,282,000 |
| <u>Off peak Mcf</u> | | | | | | | |
| φ/Mcf | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| <u>CXS</u> | | | | | | | |
| Excess gas Mcf (Available | - | - | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| only for Specified | - | - | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 |
| Customer-Stelco Steel | - | - | \$1,500,000 | \$1,500,000 | \$1,500,000 | \$1,500,000 | \$1,500,000 |
| Plant, Hamilton) | - | - | - | - | - | - | - |
| φ/Mcf | \$ | \$ | - | - | - | - | - |
| Revenue | \$ | \$ | - | - | - | - | - |
| <u>Total annual Mcf</u> | | | | | | | |
| Total revenue | \$ | \$ | 5,000,000 | 19,000,000 | 22,400,000 | 25,800,000 | 28,800,000 |
| | | | \$1,500,000 | \$6,960,000 | \$8,286,000 | \$9,612,000 | \$10,782,000 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| DOMINION NATURAL GAS CO. LTD. | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-------------------------------|--|----------------|----------------|-----------------------|-----------------------|-----------------------|----------------------|----------------------|
| Rate | | | | | | | | |
| CSGS | | | | | | | | |
| <u>General Firm</u> | | | | | | | | |
| DCQ - Mcf | | - | - | 2,107 | 3,512 | 4,215 | 4,917 | 4,999 |
| <u>Industrial Firm</u> | | | | | | | | |
| DCQ - Mcf | | - | - | - | - | - | - | - |
| Demand rate | | - | - | - | - | - | - | - |
| Revenue | | - | - | - | - | - | - | - |
| <u>Annual Mcf</u> | | | | | | | | |
| Commodity rate | | - | - | 300,000 | 500,000 | 600,000 | 700,000 | 780,000 |
| Revenue | | \$ \$ | \$ \$ | \$ 0.532 \$159,600 | \$ 0.532 \$266,000 | \$ 0.532 \$319,200 | \$ 0.65 \$455,000 | \$ 0.65 \$507,000 |
| <u>Off peak Mcf</u> | | | | | | | | |
| ϕ /Mcf | | - | - | - | - | - | - | - |
| Revenue | | - | - | - | - | - | - | - |
| <u>Excess gas Mcf</u> | | | | | | | | |
| ϕ /Mcf | | - | - | - | - | - | - | - |
| Revenue | | - | - | - | - | - | - | - |
| <u>Total annual Mcf</u> | | | | | | | | |
| Total revenue | | - | - | 300,000 \$159,600 | 500,000 \$266,000 | 600,000 \$319,200 | 700,000 \$455,000 | 780,000 \$507,000 |

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| <u>LAKELAND NATURAL GAS CO.</u> | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|---------------------------------|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <u>General Firm</u> | | | | | | | | |
| DCQ - Mcf | | - | - | 3,900 | 6,500 | 7,900 | 10,350 | 11,000 |
| Demand rate/Mcf | | \$ - | \$ - | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 |
| Revenue | | \$ - | \$ - | \$ 236,340 | \$ 393,900 | \$ 478,740 | \$ 627,210 | \$ 666,600 |
| <u>Industrial Firm</u> | | | | | | | | |
| DCQ - Mcf | | - | - | - | - | - | - | - |
| Demand rate | | - | - | - | - | - | - | - |
| Revenue | | - | - | - | - | - | - | - |
| <u>Annual Mcf</u> | | | | | | | | |
| Commodity rate | | - | - | 1,397,538 | 2,344,141 | 2,857,799 | 3,734,219 | 3,951,319 |
| Revenue | | \$ - | \$ - | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 |
| | | \$ - | \$ - | \$ 419,261 | \$ 703,242 | \$ 857,340 | \$ 1,120,266 | \$ 1,185,396 |
| <u>Off peak Mcf</u> | | | | | | | | |
| ¢/Mcf | | - | - | - | - | - | - | - |
| Revenue | | - | - | - | - | - | - | - |
| <u>Excess gas Mcf</u> | | | | | | | | |
| ¢/Mcf | | - | - | - | - | - | - | - |
| Revenue | | - | - | - | - | - | - | - |
| <u>Total annual Mcf</u> | | | | | | | | |
| Total revenue | | \$ - | \$ - | \$ 1,397,538 | \$ 2,344,141 | \$ 2,857,799 | \$ 3,734,219 | \$ 3,951,319 |
| | | | | \$ 655,601 | \$ 1,097,142 | \$ 1,336,080 | \$ 1,747,476 | \$ 1,851,996 |

Rate
ED-1

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| LAKE SHORE GROUP BROOKVILLE, CORNWALL, KINGSTON | | 1956/57 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--|------------------|---------|---------|-------------|-------------|--------------|--------------|--------------|
| Rate ED-1 | General Firm | | | | | | | |
| | DCQ - Mcf | - | - | 4,596 | 8,600 | 10,516 | 11,793 | 12,643 |
| | Demand rate/Mcf | \$ | \$ | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 |
| | Revenue | \$ | \$ | \$ 278,518 | \$ 521,160 | \$ 637,270 | \$ 714,656 | \$ 766,166 |
| EIF | Industrial Firm | | | | | | | |
| | DCQ - Mcf | - | - | 445 | 445 | 445 | 445 | 445 |
| | Demand rate | \$ | \$ | \$ 45.36 | \$ 45.36 | \$ 45.36 | \$ 45.36 | \$ 45.36 |
| | Revenue | \$ | \$ | \$ 20,185 | \$ 20,185 | \$ 20,185 | \$ 20,185 | \$ 20,185 |
| | Annual Mcf | - | - | 1,652,000 | 2,806,000 | 3,400,000 | 3,797,000 | 3,967,000 |
| | Commodity rate | \$ | \$ | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 |
| | Revenue | \$ | \$ | \$ 495,600 | \$ 841,800 | \$ 1,020,000 | \$ 1,139,100 | \$ 1,190,100 |
| | Off peak Mcf | - | - | - | - | - | - | - |
| | φ/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| EXS | Excess gas Mcf | - | - | 1,395,000 | 687,000 | 362,000 | 143,000 | 90,000 |
| | φ/Mcf | \$ | \$ | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 |
| | Revenue | \$ | \$ | \$ 418,500 | \$ 206,100 | \$ 108,600 | \$ 42,900 | \$ 27,000 |
| | Total annual Mcf | - | - | 3,047,000 | 3,493,000 | 3,762,000 | 3,940,000 | 4,057,000 |
| | Total revenue | \$ | \$ | \$1,212,803 | \$1,589,245 | \$1,786,055 | \$1,916,841 | \$2,003,451 |

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| INTERPROVINCIAL UTILITIES LTD. | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Rate ED-1 | General Firm | | | | | | | |
| | DCQ - Mcf | - | - | 1,439 | 3,303 | 4,484 | 7,924 | 11,419 |
| | Demand rate/Mcf | \$ - | \$ - | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 |
| | Revenue | \$ - | \$ - | \$ 87,203 | \$ 200,162 | \$ 271,730 | \$ 480,194 | \$ 691,991 |
| EIF | Industrial Firm | | | | | | | |
| | DCQ - Mcf | - | - | 12,000 | 12,000 | 12,000 | 12,000 | 12,000 |
| | Demand rate | \$ - | \$ - | \$ 45.36 | \$ 45.36 | \$ 45.36 | \$ 45.36 | \$ 45.36 |
| | Revenue | \$ - | \$ - | \$ 544,320 | \$ 544,320 | \$ 544,320 | \$ 544,320 | \$ 544,320 |
| | Annual Mcf | - | - | 4,454,132 | 4,737,956 | 5,454,414 | 6,584,454 | 8,281,095 |
| | Commodity rate | \$ - | \$ - | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 |
| | Revenue | \$ - | \$ - | \$ 1,336,240 | \$ 1,421,387 | \$ 1,636,324 | \$ 1,975,336 | \$ 2,484,329 |
| EOP | Off peak Mcf (Part 6 Mo's (Firm @ 36¢ (Part 9 Mo's (Firm @ 39¢ | - | - | 915,000 | 915,000 | 915,000 | 915,000 | 915,000 |
| | ¢/Mcf | \$ - | \$ - | \$ 0.37 | \$ 0.37 | \$ 0.37 | \$ 0.37 | \$ 0.37 |
| | Revenue | \$ - | \$ - | \$ 338,550 | \$ 338,550 | \$ 338,550 | \$ 338,550 | \$ 338,550 |
| EXS | Excess gas Mcf | - | - | 3,352,173 | 2,849,767 | 1,977,598 | 1,259,200 | - |
| | ¢/Mcf | \$ - | \$ - | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ - |
| | Revenue | \$ - | \$ - | \$ 1,005,652 | \$ 854,930 | \$ 593,279 | \$ 377,760 | \$ - |
| | Total annual Mcf | - | - | 8,721,305 | 8,502,723 | 8,347,012 | 8,758,654 | 9,196,095 |
| | Total revenue | \$ - | \$ - | \$ 3,311,965 | \$ 3,359,349 | \$ 3,384,203 | \$ 3,716,160 | \$ 4,059,190 |

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN I

| QUEBEC NATURAL GAS CORPORATION | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Rate ED-1 | General Firm | | | | | | | |
| | DCQ - Mcf | - | - | 22,657 | 37,703 | 54,984 | 70,562 | 84,140 |
| | Demand rate/Mcf | \$ | \$ | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 |
| | Revenue | \$ | \$ | \$ 1,373,014 | \$ 2,284,802 | \$ 3,332,030 | \$ 4,276,057 | \$ 5,098,884 |
| EIF | Industrial Firm | | | | | | | |
| | DCQ - Mcf | - | - | 7,343 | 8,297 | 17,016 | 17,438 | 17,860 |
| | Demand rate | \$ | \$ | \$ 45.36 | \$ 45.36 | \$ 45.36 | \$ 45.36 | \$ 45.36 |
| | Revenue | \$ | \$ | \$ 333,078 | \$ 376,352 | \$ 771,846 | \$ 790,988 | \$ 810,130 |
| | Annual Mcf | - | - | 11,327,282 | 17,452,969 | 25,890,782 | 31,322,968 | 35,946,532 |
| | Commodity rate | \$ | \$ | \$ 0.28 | \$ 0.28 | \$ 0.28 | \$ 0.28 | \$ 0.28 |
| | Revenue | \$ | \$ | \$ 3,171,639 | \$ 4,886,831 | \$ 7,249,419 | \$ 8,770,431 | \$ 10,065,029 |
| EOP | Off peak Mcf | - | - | - | - | - | 6,522,914 | 5,565,524 |
| | ¢/Mcf | \$ | \$ | \$ | \$ | \$ | \$ 0.36 | \$ 0.36 |
| | Revenue | \$ | \$ | \$ | \$ | \$ | \$ 2,348,249 | \$ 2,003,589 |
| EXS | Excess gas Mcf | - | - | 3,380,965 | 8,485,432 | 8,061,111 | - | - |
| | ¢/Mcf | \$ | \$ | \$ 0.30 | \$ 0.30 | \$ 0.30 | - | - |
| | Revenue | \$ | \$ | \$ 1,014,290 | \$ 2,545,630 | \$ 2,418,333 | - | - |
| | Total annual Mcf | - | - | 14,708,247 | 25,938,401 | 33,951,893 | 37,845,882 | 41,512,056 |
| | Total revenue | \$ | \$ | \$ 5,892,021 | \$ 10,093,615 | \$ 13,771,628 | \$ 16,185,725 | \$ 17,977,632 |

TRANS-CANADA PIPE LINES LIMITEDESTIMATED GAS SALES AND REVENUE
BEFORE AND AFTER CURTAILMENTPLAN 2

| | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|-------------------------|----------------|----------------|----------------|----------------|----------------|
| <u>Requirements Met</u> | | | | | | |
| <u>Winnipeg and West</u> | | | | | | |
| Saskatchewan Power Corporation | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| Plains Western Gas & Electric Company | 931,180 | 1,104,103 | 1,261,858 | 1,401,153 | 1,538,860 | 1,656,240 |
| Manitoba Power Corporation | - | 1,000,000 | 1,240,000 | 2,100,000 | 3,100,000 | - |
| Intercity Gas Company | 1,015,390 | 1,092,425 | 1,166,650 | 1,238,197 | 1,320,602 | 1,396,009 |
| Winnipeg & Central Gas Company | 5,484,000 | 6,665,000 | 7,950,000 | 8,404,000 | 9,531,000 | 9,531,000 |
| Total Winnipeg and West | 10,724,670 | 13,849,128 | 16,299,608 | 18,344,650 | 21,385,262 | 19,171,549 |
| <u>East of Winnipeg</u> | | | | | | |
| Northern Ontario Natural Gas Company Limited | | | | | | |
| Western Ontario Zone | 6,350,000 ^{1/} | 9,915,000 | 11,367,000 | 12,009,000 | 12,516,000 | 13,158,000 |
| Less Curtailment | - | 403,550 | 2,023,769 | 2,700,000 | 2,565,000 | 2,565,000 |
| Net | 6,350,000 | 9,511,450 | 9,343,231 | 9,309,000 | 9,951,000 | 10,593,000 |
| Northern Ontario Zone | - | 11,731,000 | 17,361,000 | 23,663,000 | 25,081,000 | 26,586,000 |
| Less Curtailment | - | 490,025 | 2,277,114 | 3,780,000 | 3,456,000 | 3,348,000 |
| Net | - | 11,240,975 | 15,083,886 | 19,883,000 | 21,625,000 | 23,238,000 |
| Subtotal | 6,350,000 | 20,752,425 | 24,427,117 | 29,192,000 | 31,576,000 | 33,831,000 |
| Barrie, Orillia, etc. | - | 380,197 | 590,084 | 721,428 | 919,656 | 1,042,823 |
| The Consumers' Gas Company of Toronto | - | 25,595,600 | 31,025,000 | 35,678,800 | 43,435,000 | 51,191,300 |
| Union Gas Company of Canada, Limited | - | 5,000,000 | 19,000,000 | 22,400,000 | 25,800,000 | 28,800,000 |
| Less Curtailment | - | 1,067,594 | 3,747,720 | 5,000,000 | 5,000,000 | 5,000,000 |
| Net | - | 3,932,406 | 15,252,280 | 17,400,000 | 20,800,000 | 23,800,000 |
| The Grimsby Natural Gas Company, Limited | - | 111,408 | 119,731 | 128,023 | 136,584 | 144,970 |
| Dominion Natural Gas Company, Limited | - | 300,000 | 500,000 | 600,000 | 700,000 | 780,000 |
| Lakeland Natural Gas Limited | - | 1,397,538 | 2,344,141 | 2,857,799 | 3,734,219 | 3,951,319 |
| Lake Shore Group | - | 3,047,000 | 3,493,000 | 3,762,000 | 3,940,000 | 4,057,000 |
| Less Curtailment | - | 297,859 | 514,937 | 362,000 | 143,000 | 90,000 |
| Net | - | 2,749,141 | 2,978,063 | 3,400,000 | 3,797,000 | 3,967,000 |
| Interprovincial Utilities Limited | - | 8,721,305 | 8,502,723 | 8,347,012 | 8,758,654 | 9,196,095 |
| Less Curtailment | - | 715,751 | 2,136,025 | 2,033,257 | 2,028,510 | 812,763 |
| Net | - | 8,005,554 | 6,366,698 | 6,313,755 | 6,730,144 | 8,383,332 |
| Quebec Natural Gas Corporation | 14,708,247 | 25,938,401 | 33,951,893 | 37,845,882 | 41,512,056 | 44,498,448 |
| Less Curtailment | - | 1,811,798 | 6,042,157 | 396,787 | 4,679,361 | 4,105,741 |
| Net | 14,708,247 | 24,126,603 | 27,909,736 | 37,449,095 | 36,832,695 | 40,392,707 |
| Total East of Winnipeg | 21,058,247 | 92,137,449 | 128,254,572 | 148,012,944 | 166,533,169 | 183,405,955 |
| Less Curtailment | - | 4,786,577 | 16,741,722 | 14,272,044 | 17,871,871 | 15,921,504 |
| Net East of Winnipeg | 21,058,247 | 87,350,872 | 111,512,850 | 133,740,900 | 148,661,298 | 167,484,451 |
| Total East and West of Winnipeg | 31,782,917 | 105,986,577 | 144,554,180 | 166,357,594 | 187,918,431 | 202,577,504 |
| Less Curtailment | - | 4,786,577 | 16,741,722 | 14,272,044 | 17,871,871 | 15,921,504 |
| Net Requirements East and West of Winnipeg | 31,782,917 | 101,200,000 | 127,812,458 | 152,085,550 | 170,046,560 | 186,656,000 |

^{1/} Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1, 1958.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS SALES AND REVENUE
BEFORE AND AFTER CURTAILMENT

PLAN 2

| | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--|-------------------------|--------------|--------------|--------------|--------------|--------------|
| <u>Revenue</u> | | | | | | |
| <u>Winnipeg and West</u> | | | | | | |
| Saskatchewan Power Corporation | \$ 690,467 | \$ 835,830 | \$ 981,192 | \$ 1,090,228 | \$ 1,235,590 | \$ 1,380,952 |
| Plains Western Gas & Electric Company | 252,853 | 373,504 | 437,476 | 489,132 | 539,200 | 579,450 |
| Manitoba Power Corporation | - | 250,000 | 310,000 | 420,000 | 620,000 | - |
| Intercity Gas Company | 313,881 | 337,815 | 360,865 | 457,255 | 488,569 | 517,223 |
| Winnipeg & Central Gas Company | 1,314,445 | 1,828,025 | 2,257,675 | 2,746,100 | 3,173,675 | 3,173,675 |
| Total Winnipeg and West | 2,571,646 | 3,625,174 | 4,347,208 | 5,202,715 | 6,057,034 | 5,651,300 |
| <u>East of Winnipeg</u> | | | | | | |
| Northern Ontario Natural Gas Company Limited | | | | | | |
| Western Ontario Zone | 2,024,780 ^{1/} | 3,138,780 | 3,581,550 | 3,824,740 | 4,037,100 | 4,286,130 |
| Less Curtailment | - | 100,783 | 507,363 | 675,000 | 641,250 | 641,250 |
| Net | 2,024,780 | 3,037,997 | 3,074,187 | 3,149,740 | 3,395,850 | 3,644,880 |
| Northern Ontario Zone | - | 4,613,900 | 6,822,600 | 9,390,900 | 10,099,000 | 10,812,000 |
| Less Curtailment | - | 144,402 | 673,477 | 1,115,000 | 1,020,000 | 988,000 |
| Net | - | 4,469,498 | 6,149,123 | 8,275,900 | 9,079,000 | 9,824,000 |
| Subtotal | 2,024,780 | 7,507,495 | 9,223,310 | 11,425,640 | 12,474,850 | 13,468,880 |
| Barrie, Orillia, etc. | - | 202,265 | 313,925 | 383,800 | 597,776 | 677,835 |
| The Consumers' Gas Company of Toronto | - | 11,560,250 | 14,023,632 | 16,178,240 | 19,706,790 | 23,267,370 |
| Union Gas Company of Canada, Limited | - | 1,500,000 | 6,960,000 | 8,286,000 | 9,612,000 | 10,782,000 |
| Less Curtailment | - | 319,945 | 1,127,473 | 1,500,000 | 1,500,000 | 1,500,000 |
| Net | - | 1,180,055 | 5,832,527 | 6,786,000 | 8,112,000 | 9,282,000 |
| The Grimsby Natural Gas Company, Limited | - | 59,269 | 63,697 | 68,108 | 88,780 | 94,231 |
| Dominion Natural Gas Company, Limited | - | 159,600 | 266,000 | 319,200 | 455,000 | 507,000 |
| Lakeland Natural Gas Limited | - | 655,601 | 1,097,142 | 1,336,080 | 1,747,476 | 1,851,996 |
| Lake Shore Group | - | 1,212,803 | 1,589,245 | 1,786,055 | 1,916,841 | 2,003,451 |
| Less Curtailment | - | 89,265 | 154,914 | 108,600 | 42,900 | 27,000 |
| Net | - | 1,122,538 | 1,434,331 | 1,677,455 | 1,873,941 | 1,976,451 |
| Interprovincial Utilities Limited | - | 3,311,965 | 3,359,349 | 3,384,203 | 3,716,160 | 4,059,190 |
| Less Curtailment | - | 214,502 | 642,607 | 614,280 | 662,431 | 301,457 |
| Net | - | 3,097,463 | 2,716,742 | 2,769,923 | 3,053,729 | 3,757,733 |
| Quebec Natural Gas Corporation | 6,936,652 | 10,093,615 | 13,771,628 | 16,185,725 | 17,977,632 | 19,277,324 |
| Less Curtailment | - | 542,974 | 1,817,737 | 145,669 | 1,684,726 | 1,481,676 |
| Net | 6,936,652 | 9,550,641 | 11,953,891 | 16,040,056 | 16,292,906 | 17,795,648 |
| Total East of Winnipeg | 8,961,432 | 36,508,048 | 51,848,768 | 61,143,051 | 69,954,555 | 77,618,527 |
| Less Curtailment | - | 1,411,871 | 4,923,571 | 4,158,549 | 5,551,307 | 4,939,383 |
| Net East of Winnipeg | 8,961,432 | 35,096,177 | 46,925,197 | 56,984,502 | 64,403,248 | 72,679,144 |
| Total East and West of Winnipeg | 11,533,078 | 40,133,222 | 56,195,976 | 66,345,766 | 76,011,589 | 83,269,827 |
| Less Curtailment | - | 1,411,871 | 4,923,571 | 4,158,549 | 5,551,307 | 4,939,383 |
| Net Revenue East and West of Winnipeg | \$11,533,078 | \$38,721,351 | \$51,272,405 | \$62,187,217 | \$70,460,282 | \$78,330,444 |

^{1/} Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1, 1958.

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

| SASKATCHEWAN POWER CORPORATION | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Rate | | | | | | | | |
| <u>General Firm</u> | | | | | | | | |
| SD | DCQ - Mcf | - | 9,500 | 11,500 | 13,500 | 15,000 | 17,000 | 19,000 |
| | Demand rate/Mcf | \$ - | \$ 12.00 | \$ 12.00 | \$ 12.00 | \$ 12.00 | \$ 12.00 | \$ 12.00 |
| | Revenue | \$ - | \$ 114,000 | \$ 138,000 | \$ 162,000 | \$ 180,000 | \$ 204,000 | \$ 228,000 |
| <u>Industrial Firm</u> | | | | | | | | |
| | DCQ - Mcf | - | - | - | - | - | - | - |
| | Demand rate | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| <u>Annual Mcf</u> | | | | | | | | |
| | Commodity rate | - | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| | Revenue | \$ - | \$ 0.175 | \$ 0.175 | \$ 0.175 | \$ 0.175 | \$ 0.175 | \$ 0.175 |
| | | \$ - | \$ 576,467 | \$ 697,830 | \$ 819,192 | \$ 910,228 | \$ 1,031,590 | \$ 1,152,952 |
| <u>Off peak Mcf</u> | | | | | | | | |
| | ¢/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| <u>Excess gas Mcf</u> | | | | | | | | |
| | ¢/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| <u>Total annual Mcf</u> | | | | | | | | |
| | Total revenue | \$ - | 3,294,100 | 3,987,600 | 4,681,100 | 5,201,300 | 5,894,800 | 6,588,300 |
| | | \$ - | \$ 690,467 | \$ 835,830 | \$ 981,192 | \$ 1,090,228 | \$ 1,235,590 | \$ 1,380,952 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

PLAINS WESTERN GAS & ELECTRIC CO.

| Rate | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|------------------------|------------|------------|------------|------------|------------|------------|
| MSGS | | | | | | |
| General Firm | | | | | | |
| Max. Day - Mcf | 4,115 | - | - | - | - | - |
| MD-2 | | | | | | |
| DCQ - Mcf | - | 5,486 | 6,735 | 7,626 | 8,463 | 9,070 |
| Demand rate | - | \$ 22.80 | \$ 22.80 | \$ 22.80 | \$ 22.80 | \$ 22.80 |
| Revenue | \$ - | \$ 125,081 | \$ 153,558 | \$ 173,873 | \$ 192,956 | \$ 206,796 |
| MXS | | | | | | |
| Annual Mcf | 579,280 | 1,104,103 | 1,261,858 | 1,401,153 | 1,538,860 | 1,656,240 |
| Development rate - Mcf | 0.315 | - | - | - | - | - |
| Commodity rate - MD-2 | - | \$ 0.225 | \$ 0.225 | \$ 0.225 | \$ 0.225 | \$ 0.225 |
| Revenue | \$ 182,473 | \$ 248,423 | \$ 283,918 | \$ 315,259 | \$ 346,244 | \$ 372,654 |
| Excess Industrial | | | | | | |
| Interruptible Mcf | 351,900 | - | - | - | - | - |
| ¢/Mcf | 0.20 | - | - | - | - | - |
| Revenue | \$ 70,380 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total annual Mcf | 931,180 | 1,104,103 | 1,261,858 | 1,401,153 | 1,538,860 | 1,656,240 |
| Total revenue | \$ 252,853 | \$ 373,504 | \$ 437,476 | \$ 489,132 | \$ 539,200 | \$ 579,450 |

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

| MANITOBA POWER CORPORATION - Electric Plant | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|---|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <u>Firm Gas</u> | | | | | | | | |
| Special Contract Max. Day | | - | - | 20,000 | 40,000 | - | - | - |
| Contract Annual Mcf | | - | - | 1,000,000 | 1,240,000 | - | - | - |
| Contract Rate | | \$ - | \$ - | \$ 0.25 | \$ 0.25 | \$ - | \$ - | \$ - |
| Contract Revenue | | \$ - | \$ - | \$ 250,000 | \$ 310,000 | \$ - | \$ - | \$ - |
| | | | | | | | | |
| Special Contract Excess gas Mcf | | - | - | - | - | 2,100,000 | 3,100,000 | - |
| Contract Rate | | \$ - | \$ - | \$ - | \$ - | \$ 0.20 | \$ 0.20 | \$ - |
| Contract Revenue | | \$ - | \$ - | \$ - | \$ - | \$ 420,000 | \$ 620,000 | \$ - |
| | | | | | | | | |
| Total annual Mcf | | - | - | 1,000,000 | 1,240,000 | 2,100,000 | 3,100,000 | - |
| Total revenue | | \$ - | \$ - | \$ 250,000 | \$ 310,000 | \$ 420,000 | \$ 620,000 | \$ - |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

| <u>INTERCITY GAS COMPANY</u> | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|------------------------------|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Rate | | | | | | | | |
| <u>General Firm</u> | | | | | | | | |
| MSGs | Mcf Max. Day | - | 7,390 | 8,027 | 8,578 | 9,153 | 9,648 | 9,892 |
| <u>Industrial Firm</u> | | | | | | | | |
| | DCQ - Mcf | - | - | - | - | - | - | - |
| | Demand rate | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| <u>Annual Mcf</u> | | | | | | | | |
| | Development rate - Mcf | - | 923,590 | 995,525 | 1,064,650 | 1,136,197 | 1,218,602 | 1,294,009 |
| | Commodity rate | \$ | \$ 0.315 | \$ 0.315 | \$ 0.315 | \$ - | \$ - | \$ - |
| | Revenue | \$ | \$ - | \$ - | \$ - | \$ 0.38 | \$ 0.38 | \$ 0.38 |
| | | \$ | \$ 290,931 | \$ 313,590 | \$ 335,365 | \$ 431,755 | \$ 463,069 | \$ 491,723 |
| <u>Off peak Mcf</u> | | | | | | | | |
| | φ/Mcf | - | 91,800 | 96,900 | 102,000 | 102,000 | 102,000 | 102,000 |
| | Revenue | \$ | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 | \$ 0.25 |
| | | \$ | \$ 22,950 | \$ 24,225 | \$ 25,500 | \$ 25,500 | \$ 25,500 | \$ 25,500 |
| <u>Excess gas Mcf</u> | | | | | | | | |
| | φ/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| <u>Total annual Mcf</u> | | | | | | | | |
| | Total revenue | - | 1,015,390 | 1,092,425 | 1,166,650 | 1,238,197 | 1,320,602 | 1,396,009 |
| | | \$ | \$ 313,881 | \$ 337,815 | \$ 360,865 | \$ 457,255 | \$ 488,569 | \$ 517,223 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (Mcf) AND REVENUE

PLAN II

| WINNIPEG & CENTRAL GAS COMPANY | | 1956/57 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--------------------------------|----|---------|-------------|--------------|-------------|-------------|-------------|-------------|
| Rate | | | | | | | | |
| <u>General Firm</u> | | | | | | | | |
| DCQ - Mcf | - | - | 9,600 | 17,800 | 25,500 | 33,800 | 41,400 | 41,400 |
| Demand rate/Mcf | \$ | \$ | 22.80 | \$ 22.80 | \$ 22.80 | \$ 22.80 | \$ 22.80 | \$ 22.80 |
| Revenue | - | \$ | 218,500 | \$ 405,500 | \$ 581,000 | \$ 770,000 | \$ 944,000 | \$ 944,000 |
| <u>Industrial Firm</u> | | | | | | | | |
| DCQ - Mcf | - | - | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| Demand rate | \$ | \$ | 17.04 | \$ 17.04 | \$ 17.04 | \$ 17.04 | \$ 17.04 | \$ 17.04 |
| Revenue | - | \$ | 85,200 | \$ 85,200 | \$ 85,200 | \$ 85,200 | \$ 85,200 | \$ 85,200 |
| <u>Annual Mcf</u> | | | | | | | | |
| 90% Load Factor Mcf | - | - | 4,959,000 | - | - | - | - | - |
| Community rate | \$ | \$ | 0.18 | \$ - | \$ - | \$ - | \$ - | \$ - |
| Revenue | - | \$ | 892,620 | \$ - | \$ - | \$ - | \$ - | \$ - |
| <u>75% Load Factor Mcf</u> | | | | | | | | |
| Commodity rate | - | \$ | - | \$ 6,492,000 | 7,891,000 | - | - | - |
| Revenue | - | \$ | - | \$ 0.20 | \$ 0.20 | \$ - | \$ - | \$ - |
| <u>50% Load Factor Mcf</u> | | | | | | | | |
| Commodity rate | - | \$ | - | \$ - | \$ - | 8,404,000 | 9,531,000 | 9,531,000 |
| Revenue | - | \$ | - | \$ - | \$ - | \$ 0.225 | \$ 0.225 | \$ 0.225 |
| <u>Additional Mcf</u> | | | | | | | | |
| Additional Gas rate | - | \$ | 525,000 | 173,000 | 59,000 | - | - | - |
| Revenue | - | \$ | 118,125 | \$ 38,925 | \$ 13,275 | \$ - | \$ - | \$ - |
| <u>Total annual Mcf</u> | | | | | | | | |
| Total revenue | - | \$ | 5,484,000 | 6,665,000 | 7,950,000 | 8,404,000 | 9,531,000 | 9,531,000 |
| | - | \$ | \$1,314,445 | \$1,828,025 | \$2,257,675 | \$2,746,100 | \$3,173,675 | \$3,173,675 |

ANNUAL GAS SALES (MCF) AND REVENUE

NORTHERN ONTARIO NATURAL GAS CO.

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TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

NORTHERN ONTARIO NATURAL GAS CO.
NORTHERN ZONE

| Rate | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <u>General Firm</u> | | | | | | | |
| ND-1 | - | - | 19,100 | 22,500 | 28,200 | 32,520 | 36,360 |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| | - | - | 49.20 | 49.20 | 49.20 | 49.20 | 49.20 |
| | - | - | 939,700 | \$1,107,000 | \$1,387,400 | \$1,600,000 | \$1,788,900 |
| <u>Industrial Firm</u> | | | | | | | |
| NIF | - | - | 3,300 | 11,500 | 19,000 | 19,000 | 19,000 |
| | - | - | \$ | \$ | \$ | \$ | \$ |
| | - | - | 36.84 | 36.84 | 36.84 | 36.84 | 36.84 |
| | - | - | 121,600 | 423,700 | 700,000 | 700,000 | 700,000 |
| | - | - | 5,600 | 8,500 | 11,800 | 12,880 | 13,840 |
| | - | - | 28,000 | 42,500 | 59,000 | 64,400 | 69,200 |
| <u>Annual Mcf</u> | | | | | | | |
| 1) General & Industrial | | | | | | | |
| | - | - | 7,392,000 | 11,220,500 | 15,576,000 | 16,923,800 | 18,186,400 |
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| | - | - | 0.295 | 0.295 | 0.295 | 0.295 | 0.295 |
| | - | - | \$2,180,600 | \$3,310,000 | \$4,594,900 | \$4,992,500 | \$5,365,000 |
| 2) "Additional Demand" | | | | | | | |
| Special | - | - | 2,044,000 | 3,102,500 | 4,307,000 | 4,701,200 | 5,051,600 |
| Rate | - | - | \$ | \$ | \$ | \$ | \$ |
| | - | - | 0.34 | 0.35 | 0.37 | 0.38 | 0.39 |
| | - | - | \$ | \$ | \$ | \$ | \$ |
| | - | - | 695,000 | \$1,085,900 | \$1,593,600 | \$1,786,500 | \$1,970,100 |
| <u>Excess Gas</u> | | | | | | | |
| NXS | - | - | 17,000 | 22,500 | 28,000 | 25,600 | 24,800 |
| | - | - | \$ | \$ | \$ | \$ | \$ |
| | - | - | 2,295,000 | 3,038,000 | 3,780,000 | 3,456,000 | 3,348,000 |
| | - | - | \$ | \$ | \$ | \$ | \$ |
| | - | - | 0.295 | 0.295 | 0.295 | 0.295 | 0.295 |
| | - | - | \$ | \$ | \$ | \$ | \$ |
| | - | - | 677,000 | 896,000 | \$1,115,000 | \$1,020,000 | \$ |
| | - | - | 11,731,000 | 17,361,000 | 23,663,000 | 25,081,000 | 26,586,000 |
| | - | - | \$ | \$ | \$ | \$ | \$ |
| | - | - | \$4,613,900 | \$6,822,600 | \$9,390,900 | \$10,099,000 | \$10,812,000 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

BARRIE - ORILLIA, ETC.

| Rate CSGS | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| General Firm | | | | | | | |
| Maximum Day - Mcf | - | - | 2,930 | 5,835 | 7,712 | 8,789 | 9,733 |
| Industrial Firm | | | | | | | |
| DCQ - Mcf | - | - | - | - | - | - | - |
| Demand rate | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| Annual Mcf | - | - | 380,197 | 590,084 | 721,428 | 919,656 | 1,042,823 |
| Commodity rate | \$ | \$ | \$ 0.532 | \$ 0.532 | \$ 0.532 | \$ 0.65 | \$ 0.65 |
| Revenue | \$ | \$ | \$ 202,265 | \$ 313,925 | \$ 383,800 | \$ 597,776 | \$ 677,835 |
| Off peak Mcf | - | - | - | - | - | - | - |
| ¢/Mcf | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| Excess gas Mcf | - | - | - | - | - | - | - |
| ¢/Mcf | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| Total annual Mcf | - | - | 380,197 | 590,084 | 721,428 | 919,656 | 1,042,823 |
| Total revenue | \$ | \$ | \$ 202,265 | \$ 313,925 | \$ 383,800 | \$ 597,776 | \$ 677,835 |

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

| CONSUMERS GAS CO. OF TORONTO | | 1956/57 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|-----------------------------------|-----------------------|---------|---------|--------------|--------------|--------------|--------------|--------------|
| Rate CD-1 | General Firm | | | | | | | |
| | DCQ - Mcf | - | - | 64,350 | 76,860 | 85,500 | 100,350 | 113,400 |
| | Demand rate/Mcf | \$ - | \$ - | \$ 52.80 | \$ 52.80 | \$ 52.80 | \$ 52.80 | \$ 52.80 |
| | Revenue | \$ - | \$ - | \$3,397,680 | \$4,058,208 | \$4,514,400 | \$5,298,480 | \$5,987,520 |
| CIF | Industrial Firm | | | | | | | |
| | DCQ - Mcf | - | - | 7,150 | 8,540 | 9,500 | 11,150 | 12,600 |
| | Demand rate | \$ - | \$ - | \$ 39.60 | \$ 39.60 | \$ 39.60 | \$ 39.60 | \$ 39.60 |
| | Revenue | \$ - | \$ - | \$ 283,140 | \$ 338,184 | \$ 376,200 | \$ 441,540 | \$ 498,960 |
| | Additional Demand-Mcf | - | - | 11,000 | 14,600 | 20,000 | 28,500 | 39,000 |
| | Total Demand - Mcf | - | - | 82,500 | 100,000 | 115,000 | 140,000 | 165,000 |
| Special Rate | Annual Mcf | - | - | 21,580,600 | 25,696,000 | 28,378,800 | 33,032,000 | 36,956,300 |
| | Commodity rate | \$ - | \$ - | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 |
| | Revenue | \$ - | \$ - | \$6,474,180 | \$7,708,800 | \$8,513,640 | \$9,909,600 | \$11,086,890 |
| Special Rate | Additional firm-Mcf | - | - | 4,015,000 | 5,329,000 | 7,300,000 | 10,403,000 | 14,235,000 |
| | Additional Gas rate | \$ - | \$ - | \$ 0.35 | \$ 0.36 | \$ 0.38 | \$ 0.39 | \$ 0.40 |
| | Revenue | \$ - | \$ - | \$1,405,250 | \$1,918,440 | \$2,774,000 | \$4,057,170 | \$5,694,000 |
| Excess gas Mcf ¢/Mcf | Excess gas Mcf | - | - | - | - | - | - | - |
| | ¢/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| Total annual Mcf Total revenue | Total annual Mcf | - | - | 25,595,600 | 31,025,000 | 35,678,800 | 43,435,000 | 51,191,300 |
| | Total revenue | \$ - | \$ - | \$11,560,250 | \$14,023,632 | \$16,178,240 | \$19,706,790 | \$23,267,370 |

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

| <u>UNION GAS CO. OF CANADA</u> | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--------------------------------|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Rate | <u>General Firm</u> | | | | | | | |
| | DCQ - Mcf | - | - | - | - | - | - | - |
| | Demand rate/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| | <u>Industrial Firm</u> | | | | | | | |
| | DCQ - Mcf | - | - | - | - | - | - | - |
| | Demand rate | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| Special Con- tract Rate | <u>Annual Mcf</u> | - | - | - | 14,000,000 | 17,400,000 | 20,800,000 | 23,800,000 |
| | Commodity rate | \$ | \$ | - | \$ 0.39 | \$ 0.39 | \$ 0.39 | \$ 0.39 |
| | Revenue | \$ | \$ | - | \$5,460,000 | \$6,786,000 | \$8,112,000 | \$9,282,000 |
| | <u>Off peak Mcf</u> | - | - | - | - | - | - | - |
| | ¢/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| CXS | <u>Excess gas Mcf (Available only for Specified Customer-Stelco Steel Plant, Hamilton)</u> | - | - | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| | ¢/Mcf | \$ | \$ | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 |
| | Revenue | \$ | \$ | \$1,500,000 | \$1,500,000 | \$1,500,000 | \$1,500,000 | \$1,500,000 |
| | <u>Total annual Mcf</u> | - | - | 5,000,000 | 19,000,000 | 22,400,000 | 25,800,000 | 28,800,000 |
| | Total revenue | \$ | \$ | \$1,500,000 | \$6,960,000 | \$8,286,000 | \$9,612,000 | \$10,782,000 |

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

| <u>THE GRIMSBY NATURAL GAS CO. LTD.</u> | | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|---|--|----------------|----------------|-----------------------|-----------------------|-----------------------|----------------------|----------------------|
| <u>Rate</u> CSGS | <u>General Firm</u> <u>DCQ - Mcf</u> | - | - | 405 | 494 | 587 | 675 | 763 |
| | <u>Industrial Firm</u> <u>DCQ - Mcf</u> | - | - | - | - | - | - | - |
| | Demand rate | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| | <u>Annual Mcf</u> <u>Commodity rate</u> | - | - | 111,408 | 119,731 | 128,023 | 136,584 | 144,970 |
| | Revenue | \$ \$ | \$ \$ | \$ 0.532 \$ 59,269 | \$ 0.532 \$ 63,697 | \$ 0.532 \$ 68,108 | \$ 0.65 \$ 88,780 | \$ 0.65 \$ 94,231 |
| | Off peak Mcf ¢/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| | Excess gas Mcf ¢/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| | Total annual Mcf | - | - | 111,408 | 119,731 | 128,023 | 136,584 | 144,970 |
| | Total revenue | \$ | \$ | \$ 59,269 | \$ 63,697 | \$ 68,108 | \$ 88,780 | \$ 94,231 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

DOMINION NATURAL GAS CO. LTD.

| <u>Rate</u> <u>CSGS</u> | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <u>General Firm</u> | | | | | | | |
| DCQ - Mcf | - | - | 2,107 | 3,512 | 4,215 | 4,917 | 4,999 |
| <u>Industrial Firm</u> | | | | | | | |
| DCQ - Mcf | - | - | - | - | - | - | - |
| Demand rate | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| <u>Annual Mcf</u> | - | - | 300,000 | 500,000 | 600,000 | 700,000 | 780,000 |
| <u>Commodity rate</u> | \$ | \$ | \$ 0.532 | \$ 0.532 | \$ 0.532 | \$ 0.65 | \$ 0.65 |
| Revenue | \$ | \$ | \$159,600 | \$266,000 | \$319,200 | \$455,000 | \$507,000 |
| <u>Off peak Mcf</u> | - | - | - | - | - | - | - |
| <u>¢/Mcf</u> | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| <u>Excess gas Mcf</u> | - | - | - | - | - | - | - |
| <u>¢/Mcf</u> | - | - | - | - | - | - | - |
| Revenue | - | - | - | - | - | - | - |
| <u>Total annual Mcf</u> | - | - | 300,000 | 500,000 | 600,000 | 700,000 | 780,000 |
| <u>Total revenue</u> | \$ | \$ | \$159,600 | \$266,000 | \$319,200 | \$455,000 | \$507,000 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

LAKELAND NATURAL GAS CO.

Rate
ED-1

General Firm

DCQ - Mcf
Demand rate/Mcf
Revenue

Industrial Firm

DCQ - Mcf
Demand rate
Revenue

Annual Mcf

Commodity rate
Revenue

Off peak Mcf
¢/Mcf
Revenue

Excess gas Mcf
¢/Mcf
Revenue

Total annual Mcf
Total revenue

| | <u>1956/57</u> | <u>1957/58</u> | <u>1958/59</u> | <u>1959/60</u> | <u>1960/61</u> | <u>1961/62</u> | <u>1962/63</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | - | - | 3,900 | 6,500 | 7,900 | 10,350 | 11,000 |
| | \$ - | \$ - | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 |
| | \$ - | \$ - | \$ 236,340 | \$ 393,900 | \$ 478,740 | \$ 627,210 | \$ 666,600 |
| | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - |
| | - | - | 1,397,538 | 2,344,141 | 2,857,799 | 3,734,219 | 3,951,319 |
| | \$ - | \$ - | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 |
| | \$ - | \$ - | \$ 419,261 | \$ 703,242 | \$ 857,340 | \$ 1,120,266 | \$ 1,185,396 |
| | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - |
| | - | - | 1,397,538 | 2,344,141 | 2,857,799 | 3,734,219 | 3,951,319 |
| | \$ - | \$ - | \$ 655,601 | \$ 1,097,142 | \$ 1,336,080 | \$ 1,747,476 | \$ 1,851,996 |

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

LAKE SHORE GROUP

BROOKVILLE, CORNWALL, KINGSTON

| Rate ED-1 | General Firm | 1956/57 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|--------------|------------------|---------|---------|--------------|--------------|--------------|--------------|--------------|
| | DCQ - Mcf | - | - | 4,596 | 8,600 | 10,516 | 11,793 | 12,643 |
| | Demand rate/Mcf | \$ - | \$ - | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 |
| | Revenue | \$ - | \$ - | \$ 278,518 | \$ 521,160 | \$ 637,270 | \$ 714,656 | \$ 766,166 |
| EIF | Industrial Firm | | | | | | | |
| | DCQ - Mcf | - | - | 445 | 445 | 445 | 445 | 445 |
| | Demand rate | \$ - | \$ - | \$ 45.36 | \$ 45.36 | \$ 45.36 | \$ 45.36 | \$ 45.36 |
| | Revenue | \$ - | \$ - | \$ 20,185 | \$ 20,185 | \$ 20,185 | \$ 20,185 | \$ 20,185 |
| | Annual Mcf | - | - | 1,652,000 | 2,806,000 | 3,400,000 | 3,797,000 | 3,967,000 |
| | Commodity rate | \$ - | \$ - | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 |
| | Revenue | \$ - | \$ - | \$ 495,600 | \$ 841,800 | \$ 1,020,000 | \$ 1,139,100 | \$ 1,190,100 |
| | Off peak Mcf | - | - | - | - | - | - | - |
| | ¢/Mcf | - | - | - | - | - | - | - |
| | Revenue | - | - | - | - | - | - | - |
| EXS | Excess gas Mcf | - | - | 1,395,000 | 687,000 | 362,000 | 143,000 | 90,000 |
| | ¢/Mcf | \$ - | \$ - | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 | \$ 0.30 |
| | Revenue | \$ - | \$ - | \$ 418,500 | \$ 206,100 | \$ 108,600 | \$ 42,900 | \$ 27,000 |
| | Total annual Mcf | - | - | 3,047,000 | 3,493,000 | 3,762,000 | 3,940,000 | 4,057,000 |
| | Total revenue | \$ - | \$ - | \$ 1,212,803 | \$ 1,589,245 | \$ 1,786,055 | \$ 1,916,841 | \$ 2,003,451 |

TRANS-CANADA PIPE LINES LIMITED
ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

INTERPROVINCIAL UTILITIES LTD.

Rate
ED-1

1956/57

General Firm

DCQ - Mcf

Demand rate/Mcf

Revenue

1957/58

1958/59

1959/60

1960/61

1961/62

1962/63

-
\$
\$
-

1,439
60.60
\$
87,203
\$

3,303
60.60
\$
200,162
\$

4,484
60.60
\$
271,730
\$

7,924
60.60
\$
480,194
\$

11,419
60.60
\$
691,991
\$

EIF

Industrial Firm

DCQ - Mcf

Demand rate

Revenue

-

12,000
45.36
\$
544,320
\$

12,000
45.36
\$
544,320
\$

12,000
45.36
\$
544,320
\$

12,000
45.36
\$
544,320
\$

12,000
45.36
\$
544,320
\$

Annual Mcf

Commodity rate

Revenue

-
\$
\$
-

4,454,132
0.30
\$
\$1,336,240
\$

4,737,956
0.30
\$
\$1,421,387
\$

5,454,414
0.30
\$
\$1,636,324
\$

6,584,454
0.30
\$
\$1,975,336
\$

8,281,095
0.30
\$
\$2,484,329
\$

EOP

Off peak Mcf (Part 6 Mo's
(Firm @ 36¢
(Part 9 Mo's
(Firm @ 39¢

¢/Mcf

Revenue

-
\$
\$
-

915,000
0.37
\$
338,550
\$

915,000
0.37
\$
338,550
\$

915,000
0.37
\$
338,550
\$

915,000
0.37
\$
338,550
\$

915,000
0.37
\$
338,550
\$

EXS

Excess gas Mcf

¢/Mcf

Revenue

-
\$
\$
-

3,352,173
0.30
\$
\$1,005,652
\$

2,849,767
0.30
\$
854,930
\$

1,977,598
0.30
\$
593,279
\$

1,259,200
0.30
\$
377,760
\$

-
-
\$
-

Total annual Mcf

Total revenue

-
\$
-

8,721,305
\$3,311,965
\$

8,502,723
\$3,359,349
\$

8,347,012
\$3,384,203
\$

8,758,654
\$3,716,160
\$

9,196,095
\$4,059,190
\$

TRANS-CANADA PIPE LINES LIMITED

ANNUAL GAS SALES (MCF) AND REVENUE

PLAN II

QUEBEC NATURAL GAS CORPORATION

| Rate ED-1 | 1956/57 | 1957/58 | 1958/59 | 1959/60 | 1960/61 | 1961/62 | 1962/63 |
|------------------|---------|--------------|---------------|---------------|---------------|---------------|---------------|
| General Firm | | | | | | | |
| DCQ - Mcf | - | 30,000 | 37,703 | 54,984 | 70,562 | 84,140 | 92,718 |
| Demand rate/Mcf | \$ - | \$ 67.20 | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 | \$ 60.60 |
| Revenue | \$ - | \$ 2,016,000 | \$ 2,284,802 | \$ 3,332,030 | \$ 4,276,057 | \$ 5,098,884 | \$ 5,618,711 |
| EIF | | | | | | | |
| Industrial Firm | | | | | | | |
| DCQ - Mcf | - | - | 8,297 | 17,016 | 17,438 | 17,860 | 18,282 |
| Demand rate | \$ - | \$ - | \$ 45.36 | \$ 45.36 | \$ 45.36 | \$ 45.36 | \$ 45.36 |
| Revenue | \$ - | \$ - | \$ 376,352 | \$ 771,846 | \$ 790,988 | \$ 810,130 | \$ 829,272 |
| Annual Mcf | - | 11,327,282 | 17,452,969 | 25,890,782 | 31,322,968 | 35,946,532 | 39,876,250 |
| Commodity rate | \$ - | \$ 0.318 | \$ 0.28 | \$ 0.28 | \$ 0.28 | \$ 0.28 | \$ 0.28 |
| Revenue | \$ - | \$ 3,602,076 | \$ 4,886,831 | \$ 7,249,419 | \$ 8,770,431 | \$ 10,065,029 | \$ 11,165,350 |
| EOP | | | | | | | |
| Off peak Mcf | - | - | - | - | 6,522,914 | 5,565,524 | 4,622,198 |
| φ/Mcf | \$ - | \$ - | \$ - | \$ - | \$ 0.36 | \$ 0.36 | \$ 0.36 |
| Revenue | \$ - | \$ - | \$ - | \$ - | \$ 2,348,249 | \$ 2,003,589 | \$ 1,663,991 |
| EXS | | | | | | | |
| Excess gas Mcf | - | 3,380,965 | 8,485,432 | 8,061,111 | - | - | - |
| φ/Mcf | \$ - | \$ 0.39 | \$ 0.30 | \$ 0.30 | \$ - | \$ - | \$ - |
| Revenue | \$ - | \$ 1,318,576 | \$ 2,545,630 | \$ 2,418,333 | \$ - | \$ - | \$ - |
| Total annual Mcf | - | 14,708,247 | 25,938,401 | 33,951,893 | 37,845,882 | 41,512,056 | 44,498,448 |
| Total revenue | \$ - | \$ 6,936,652 | \$ 10,093,615 | \$ 13,771,628 | \$ 16,185,725 | \$ 17,977,632 | \$ 19,277,324 |

TRANS-CANADA PIPE LINES LIMITED

Final Revision of Estimated Construction Cost Details
Exhibits 9FR-Plan 1 and Plan 2

APPENDIX C
To February 6, 1957 Review

MARCH 1957

COMMONWEALTH



SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

TRANS-CANADA PIPE LINES LIMITED

Final Revision of Estimated Construction Cost Details
Exhibits 9FR-Plan 1 and Plan 2

APPENDIX C
To February 6, 1957 Review

MARCH 1957



COMMONWEALTH SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

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Schedule

ESTIMATED CONSTRUCTION COST DETAILS

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TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Alberta-Saskatchewan Border To Winnipeg (586 Mi. - 34")
Main Line, Laterals and Miscellaneous

| | | |
|-----|--|---------------------|
| 1. | Land and Land Rights | \$ 331,834 |
| 2. | Main Line and Laterals | |
| 3. | Line Pipe (excluding duty) | 44,446,629 |
| 4. | Other Pipeline Materials | 4,907,180 |
| 5. | Aerial Crossings | - |
| 6. | Measuring and Regulating Stations | 333,300 |
| 7. | Communications Equipment | 87,750 |
| 8. | Subtotal (3 thru 7) | <u>49,774,859</u> |
| 9. | 40% of Full Duty | 2,117,104 |
| 10. | Full Sales Taxes | 5,013,871 |
| 11. | Contingencies (5% of 8) | 2,488,743 |
| 12. | Subtotal (1 and 8 thru 11) | <u>59,726,411</u> |
| 13. | Pipeline Installation | 17,696,000 |
| 14. | Contingencies (5% of 13) | 884,800 |
| 15. | Subtotal (13 and 14) | <u>18,580,800</u> |
| 16. | Engineering and Supervision (5-1/2% of 8 and 13) | 3,710,897 |
| 17. | Headquarters Facilities | 125,000 |
| 18. | Maintenance Facilities and Equipment | 625,000 |
| 19. | Subtotal (12, 15, 16, 17 and 18) | <u>82,768,108</u> |
| 20. | Preliminary Construction Costs* | 2,369,589 |
| 21. | Gas for Cleaning and Purging | 10,475 |
| 22. | Stand-by Fee Re Sale of Bonds | 518,000 |
| 23. | Total (19 thru 22) | <u>\$85,666,172</u> |

* Preliminary survey and engineering studies, and
construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

WESTERN SECTION - ALBERTA-SASKATCHEWAN BORDER TO
WINNIPEG - 586 MILES - 34"

| Item | Unit | Quantity | Unit Cost | Source | Amount | Duty | Sales Tax | Duty Rebate | Net Duty | Frt. Rate Including + 4% Can. + 7% U.S. Increases (Pipe Only) | Cost Of Frt. | Sack. Sales Tax | Transfer Net Duty | Transfer Sales Tax | Total |
|--|-------|-----------|-----------|------------|------------|-----------|-----------|-------------|-----------|---|--------------|-----------------|-------------------|--------------------|------------|
| 1. Land & Land Rights | | | | | | | | | | | | | | | |
| (a) Pipeline | Miles | 586 | | | 285,905 | | | | | | | | | | 285,905 |
| (b) Compr. & Meter Station Sites | Acres | | | | 45,929 | | | | | | | | | | 45,929 |
| Total | | | | | 331,834 | | | | | | | | | | 331,834 |
| 2. Main Line and Laterals | | | | | | | | | | | | | | | |
| 3. Line Pipe | | | | | | | | | | | | | | | |
| (a) 34" x 3/8" 5L x 52 ML | Tons | 38,900(1) | 151.92 | Albion | 5,909,688 | 886,453 | 679,614 | 531,871 | 354,582 | 41.16 | 1,601,124 | 272,306 | (54,586) | (951,920) | 7,510,812 |
| 34" x 3/8" 5L x 52 ML | " | 81,527(2) | 164.41 | McKeesport | 13,403,854 | 2,010,578 | 1,541,443 | 1,206,347 | 804,231 | 38.31 | 3,123,299 | 302,378 | (24,521) | (1,843,821) | 16,527,153 |
| 34" x 3/8" 5L x 52 ML | " | 33,854(2) | 168.41 | A.O.S.-H | 5,701,352 | 855,203 | 655,655 | 513,122 | 342,081 | 38.31 | 1,296,947 | - | (342,081) | (655,655) | 6,998,299 |
| 34" x 3/8" 5L x 52 ML | " | 44,068(3) | 170.41 | McKeesport | 7,509,628 | 1,126,444 | 863,607 | 675,867 | 450,577 | 49.87 | 2,197,671 | 233,947 | (450,577) | (1,007,594) | 9,707,299 |
| 34" x 3/8" 5L x 52 ML | " | 12,433(3) | 174.41 | A.O.S.-H | 2,168,440 | 325,266 | 249,371 | 195,160 | 130,106 | 49.87 | 620,034 | - | (130,106) | (349,371) | 2,788,474 |
| 34" x 1/2" 5L x 52 ML | " | 2,871 | 163.45 | A.O.S.-H | 469,265 | 70,390 | 53,965 | 42,234 | 28,156 | 46.83 | 134,449 | 14,561 | (28,156) | (62,265) | 603,714 |
| 40" x 406" Casing | " | 93.71 | 227.77 | | 21,344 | 2,002 | 2,459 | 1,201 | 801 | 47.82 | 4,481 | 837 | (801) | (3,206) | 25,825 |
| 40" x 3/8" Casing | " | 7.6 | 27.21 | | 2,730 | - | 273 | - | - | Incl. | - | 87 | - | (56) | 2,730 |
| 40" x 3/8" Casing | " | 436.16 | 211.00 | | 109,477 | 16,404 | 12,590 | 9,834 | 6,570 | | 23,515 | 1,252 | (6,570) | (13,842) | 132,992 |
| 40" x 5/8" Casing | " | 22.57 | 403.22 | | 9,101 | - | 910 | - | - | | 1,902 | 345 | - | (1,255) | 11,003 |
| 40" x 5/8" Casing | " | 287.17 | 406.43 | | 116,714 | Incl. | Incl. | - | - | | 21,614 | 1,522 | - | (1,522) | 138,328 |
| Total | | | | | 35,421,593 | 5,292,740 | 4,059,887 | 3,175,636 | 2,117,104 | | 9,025,036 | 827,235 | (2,117,104) | (4,887,122) | 44,446,629 |
| (1) Received before steel strike. (2) Received after steel strike, before 1/17/57. (3) Received after 1/17/57. | | | | | | | | | | | | | | | |
| 4. Other Pipeline Materials | | | | | | | | | | | | | | | |
| A Coating Materials | | | | | | | | | | | | | | | |
| (a) Primer | Gal. | 12,237 | 1.65 | | 20,191 | | Incl. | | | | 1,591 | | | | 21,782 |
| Primer | Gal. | 27,009 | 1.65 | | 44,565 | | Incl. | | | | 3,511 | 1,350 | | (1,350) | 48,076 |
| (b) Enamel | Ton | 4,708 | 69 | | 324,852 | | Incl. | | | | 100,751 | | | | 425,603 |
| Enamel | Ton | 8,491 | 59 | | 585,879 | | Incl. | | | | 181,707 | 22,077 | | (22,077) | 767,596 |
| (c) Glass Wrap | Sq. | 107,111 | 1.03 | | 110,324 | | Incl. | | | | Incl. | | | | 110,324 |
| Glass Wrap | Sq. | 192,939 | 1.03 | | 198,727 | | Incl. | | | | Incl. | 5,788 | | (5,788) | 198,727 |
| (d) Kraft Wrap | Sq. | 109,519 | .1718 | | 18,815 | | Incl. | | | | Incl. | | | | 18,815 |
| Kraft Wrap | Sq. | 202,318 | .1718 | | 34,758 | | Incl. | | | | Incl. | 992 | | (992) | 34,758 |
| Subtotal | | | | | 1,338,111 | | | | | | 287,560 | 30,207 | | (30,207) | 1,625,671 |
| B Road & Railway Xing Materials | | | | | | | | | | | | | | | |
| (a) Seals | Each | 58 | 51.50 | | 2,987 | | Incl. | | | | | 86 | | (86) | 2,987 |
| Seals | Each | 88 | 51.50 | | 4,532 | | Incl. | | | | | | | | 4,532 |
| (b) Insulators | Each | 174 | 44.00 | | 7,668 | | Incl. | | | | | 221 | | (221) | 7,668 |
| Insulators | Each | 220 | 44.00 | | 9,680 | | Incl. | | | | | | | | 9,680 |
| (c) Cradles | Each | 58 | 24.50 | | 1,421 | | Incl. | | | | | 41 | | (41) | 1,421 |
| Cradles | Each | 88 | 24.50 | | 2,156 | | Incl. | | | | | | | | 2,156 |
| (d) 3-1/2" Gr. B Vent | Foot | 795 | .29 | | 231 | | Incl. | | | | | 6 | | (6) | 231 |
| 3-1/2" Gr. B Vent | Foot | 1,090 | .29 | | 316 | | Incl. | | | | | | | | 316 |
| (e) Vent Markers | Each | 58 | 4.85 | | 282 | | | 28 | | | | 10 | | (38) | 282 |
| Vent Markers | Each | 86 | 4.85 | | 427 | | | 43 | | | | | | (43) | 427 |
| Subtotal | | | | | 20,688 | | | 71 | | | | 364 | | (435) | 20,688 |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

WESTERN SECTION - ALBERTA-SASKATCHEWAN BORDER TO
WINNIPEG - 586 MILES - 34"

Exhibit 9 FR
Schedule 1
Sheet 3 of 6

| Item | Unit | Quantity | Unit Cost | Source | Amount | Duty | Sub- Tax | Duty Rebate | Net Duty | Frts. Rate Including + 4% Can. + 7% U.S. Increases (Pipe Only) | Cost Of Frts. | Sales Tax | Transfer Net Duty | Transfer Sales Tax | Total |
|---|------|----------|-------------|--------|-----------|-------|-------------|----------------|-------------|---|------------------|--------------|-------------------------|--------------------------|------------|
| C Valves & Fittings | | | | | | | | | | | | | | | |
| (a) Mainline Valve Assemblies | Each | 17 | 22,000 | | 374,000 | Incl. | Incl. | Incl. | Incl. | | Incl. | Incl. | | | 374,000 |
| Mainline Valve Assemblies | Each | 7 | 21,381 | | 149,667 | Incl. | Incl. | Incl. | Incl. | | Incl. | | | | 149,667 |
| (b) Station Valve Assemblies | Each | 7 | 43,856 | | 306,992 | Incl. | Incl. | Incl. | Incl. | | Incl. | Incl. | | | 306,992 |
| Station Valve Assemblies | Each | 2 | 42,638 | | 85,272 | Incl. | Incl. | Incl. | Incl. | | Incl. | | | | 85,272 |
| (c) Sales Valve Assemblies | Each | 1 | 887 | | 887 | Incl. | Incl. | Incl. | Incl. | | Incl. | | | | 887 |
| Sales Valve Assemblies | Each | 1 | 2,337 | | 2,337 | Incl. | Incl. | Incl. | Incl. | | Incl. | | | | 2,337 |
| (d) Fittings For Drips | Each | 6 | 6,154 | | 36,924 | Incl. | Incl. | Incl. | Incl. | | Incl. | Incl. | | | 36,924 |
| Fittings For Drips | Each | 3 | 6,037 | | 18,111 | Incl. | Incl. | Incl. | Incl. | | Incl. | | | | 18,111 |
| (e) Fittings For River Crossings | Lot | | | | 905,766 | | | | | | | | | | 905,766 |
| Subtotal | | | | | 1,879,956 | | | | | | | | | | 1,879,956 |
| D Anchors | | | | | | | | | | | | | | | |
| (a) 6,000 Lb. Conc. Wts. - Swamps | Each | 5,209 | 90 | | 468,810 | | 47,801 | | | | | 14,546 | | (21,727) | 468,810 |
| (b) 6,000 Lb. Conc. Wts. - Rivers | Each | 3,820 | 90 | | 343,800 | | 34,380 | | | | | | | (34,380) | 343,800 |
| Subtotal | | | | | 812,610 | | 81,261 | | | | | 14,846 | | (56,107) | 812,610 |
| Subtotal Other Pipeline Materials | | | | | 4,060,365 | | 81,332 | | | | 287,560 | 45,417 | | (126,742) | 4,347,925 |
| E Misc. Matls. (1% Approx. Items 3 & 4) | | | | | | | | | | | | | | | 552,255 |
| Total Other Pipeline Materials | | | | | | | | | | | | | | | 4,900,180 |
| F. Aerial Crossings | | | | | | | | | | | | | | | - |
| G. Measuring and Regulating Stations | | 7 | Est. (+ 1%) | | 333,300 | | | | | | | | | | 333,300 |
| H. Communications Equipment | | | | | | | | | | | | | | | 87,750 |
| I. Subtotal (3 thru 7) | | | | | | | | | | | | | | | 421,050 |
| J. 40% of Full Duty | | | | | | | | | | | | | 2,117,104 | | 2,117,104 |
| K. Full Sales Taxes | | | | | | | | | | | | | | | 5,013,871 |
| L. Contingencies (5% of 8) | | | | | | | | | | | | | | | 2,488,743 |
| M. Subtotal (1 and 8 thru 11) | | | | | | | | | | | | | | | 52,726,411 |
| N. Pipeline Installation (See details attached) | | | | | | | | | | | | | | | 17,626,000 |
| O. Contingencies (5% of 13) | | | | | | | | | | | | | | | 884,800 |
| P. Subtotal (13 and 14) | | | | | | | | | | | | | | | 18,580,800 |
| Q. Engineering and Supervision (5-1/2% of 8 and 13) | | | | | | | | | | | | | | | 3,710,887 |
| R. Headquarters Facilities | | | | | | | | | | | | | | | 125,000 |
| S. Maintenance Facilities and Equipment | | | | | | | | | | | | | | | 625,000 |
| T. Subtotal (12, 15, 16, 17 and 18) | | | | | | | | | | | | | | | 82,768,108 |
| U. Preliminary Construction Costs* | | | | | | | | | | | | | | | 2,361,589 |
| V. Gas for Cleaning and Purging | | | | | | | | | | | | | | | 10,475 |
| W. Stand-by Fee Re Sale of Bonds | | | | | | | | | | | | | | | 518,000 |
| X. Total (19 thru 22) | | | | | | | | | | | | | | | 85,666,172 |

* Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED COST OF PIPELINE INSTALLATION

West Portion - 200 Miles of Western Section
Alberta-Saskatchewan Border to Winnipeg - 586 Miles - 34"

| | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | (\$000 Omitted) <u>Amount</u> |
|------------------------------|-------------|-----------------|------------------|-------------------------------------|
| 1. Mainline (200 Miles) | Lin.Ft. | 1,056,000 | 5.25 | 5,544 |
| 2. River Crossings | None | | | |
| 3. River Bridge | None | | | |
| 4. Highway & Railway Xings | Lin.Ft. | 1,790 | 40.00 | 72 |
| 5. Mainline Valve Assemblies | Each | 9 | 7,400.00 | 67 |
| 6. Station Valve Assemblies | Each | 4 | 5,143.00 | 20 |
| 7. Meter Regulating Stations | None | | | |
| 8. Testing | Lin.Ft. | 1,056,000 | .05 | <u>53</u> |
| Total | | | | <u><u>5,756</u></u> |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED COST OF PIPELINE INSTALLATION

East Portion - 386 Miles of Western Section
Alberta-Saskatchewan Border to Winnipeg - 586 Miles - 34"

| | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | (\$000 Omitted) <u>Amount</u> |
|------------------------------|-------------|-----------------|----------------------|-------------------------------------|
| 1. Mainline (386 miles) | Lin.Ft. | 2,038,080 | 5.25 | 10,700 |
| 2. River Crossings | Each | 3 | | 675 |
| 3. River Bridge | None | | | |
| 4. Highway & Railway Xings | Lin.Ft. | 6,735 | 40.00 | 269 |
| 5. Mainline Valve Assemblies | Each | 16 | 7,400.00 | 118 |
| 6. Station Valve Assemblies | Each | 3 3 | 5,000.00 5,143.00 | 31 |
| 7. Meter Regulating Stations | Each | 2 | 22,500.00 | 45 |
| 8. Testing | Lin.Ft. | 2,038,080 | .05 | <u>102</u> |
| Total | | | | <u>11,940</u> |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

WESTERN SECTION - ALBERTA-SASKATCHEWAN BORDER TO
WINNIPEG - 586 MILES - 34"

| | Year Ended October 31, 1956 (200 Miles) | | Year Ended October 31, 1957 (386 Miles) | | Year Ended October 31, 1958 | Total (586 Miles) | |
|--|--|------------|--|------------|--------------------------------|----------------------|------------|
| | Tons | Amount | Tons | Amount | Amount | Tons | Amount |
| 1. Land and Land Rights | | 113,255 | | 218,579 | | | 331,834 |
| 2. Main Line and Laterals | | | | | | | |
| 3. Line Pipe | | | | | | | |
| 34" x 3/8" | 38,900 | 7,510,812 | - | - | | 38,900 | 7,510,812 |
| 34" x 3/8 | 23,341 | 4,731,724 | 58,186 | 11,795,429 | | 81,527 | 16,527,153 |
| 34" x 3/8" | 9,699 | 2,003,613 | 24,153 | 4,994,686 | | 33,854 | 6,998,299 |
| 34" x 3/8" | - | - | 44,068 | 9,707,299 | | 44,068 | 9,707,299 |
| 34" x 3/8" | - | - | 12,433 | 2,788,474 | | 12,433 | 2,788,474 |
| 34" x 1/2" | 980 | 206,048 | 1,891 | 397,666 | | 2,871 | 603,714 |
| Other Pipe - Casing | 289.15 | 106,103 | 558.06 | 204,775 | | 847.21 | 310,878 |
| Total Line Pipe | | 14,558,300 | | 29,888,329 | | | 44,446,629 |
| 4. Other Pipeline Materials | | 1,674,820 | | 3,232,360 | | | 4,907,180 |
| 5. Aerial Crossings | | - | | - | | | - |
| 6. Measuring and Regulating Stations | | - | | 333,300 | | | 333,300 |
| 7. Communications Equipment | | 30,000 | | 57,750 | | | 87,750 |
| 8. Subtotal (3 thru 7) | | 16,263,120 | | 33,511,739 | | | 49,774,859 |
| 9. 40% of Full Duty | | 694,897 | | 1,422,207 | | | 2,117,104 |
| 10. Full Sales Taxes | | 1,757,719 | | 3,256,152 | | | 5,013,871 |
| 11. Contingencies (5% of 8) | | 813,156 | | 1,675,587 | | | 2,488,743 |
| 12. Subtotal (1 and 8 thru 11) | | 19,642,147 | | 40,084,264 | | | 59,726,411 |
| 13. Pipeline Installation | | 5,756,000 | | 11,940,000 | | | 17,696,000 |
| 14. Contingencies (5% of 13) | | 287,800 | | 597,000 | | | 884,800 |
| 15. Subtotal (13 and 14) | | 6,043,800 | | 12,537,000 | | | 18,580,800 |
| 16. Engineering and Supervision (5-1/2% of 8 and 13) | | 1,211,052 | | 2,499,845 | | | 3,710,897 |
| 17. Headquarters Facilities | | 43,000 | | 82,000 | | | 125,000 |
| 18. Maintenance Facilities and Equipment | | 213,000 | | 412,000 | | | 625,000 |
| 19. Subtotal (12, 15, 16, 17 and 18) | | 27,152,999 | | 55,615,109 | | | 82,768,108 |
| 20. Preliminary Construction Costs | | 2,369,589 | | - | | | 2,369,589 |
| 21. Gas for Cleaning and Purging | | - | | 10,475 | | | 10,475 |
| 22. Stand-by Fee Re Sale of Bonds | | - | | 285,000 | 233,000 | | 518,000 |
| 23. Total (19 thru 22) | | 29,522,588 | | 55,910,584 | 233,000 | | 85,666,172 |

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Winnipeg To Manitoba-Ontario Border (85 Mi. - 30")
Main Line, Laterals and Miscellaneous

| | |
|--|---------------------|
| 1. Land and Land Rights | \$ 47,005 |
| 2. Main Line and Laterals | |
| 3. Line Pipe (excluding duty) | 5,583,153 |
| 4. Other Pipeline Materials | 691,393 |
| 5. Aerial Crossings | |
| 6. Measuring and Regulating Stations | |
| 7. Communications Equipment | 12,878 |
| 8. Subtotal (3 thru 7) | <u>6,287,424</u> |
| 9. 40% of Full Duty | 244,272 |
| 10. Full Sales Taxes | 535,851 |
| 11. Contingencies (5% of 8) | 314,371 |
| 12. Subtotal (1 and 8 thru 11) | <u>7,428,923</u> |
| 13. Pipeline Installation | 5,325,000 |
| 14. Contingencies (5% of 13) | 266,250 |
| 15. Subtotal (13 and 14) | <u>5,591,250</u> |
| 16. Engineering and Supervision (5-1/2% of 8 and 13) | 638,683 |
| 17. Headquarters Facilities | 45,500 |
| 18. Maintenance Facilities and Equipment | 227,500 |
| 19. Subtotal (12, 15, 16, 17 and 18) | <u>13,931,856</u> |
| 20. Preliminary Construction Costs* | 270,005 |
| 21. Gas for Cleaning and Purging | 1,410 |
| 22. Stand-by Fee Re Sale of Bonds | 75,000 |
| 23. Total (19 thru 22) | <u>\$14,278,271</u> |

* Preliminary survey and engineering studies, and
construction management contract advances.

Exhibit 9 FR
Schedule 2
Sheet 2 of 4

WINNIPEG TO MANITOBA - ONTARIO BORDER - 85 MILES - 30"

CENTRAL SECTION A

| Item | Unit | Quantity | Unit Cost | Source | Amount | Duty | Sales Tax | Duty Rebate | Net Duty | Frht. Rate Incl. 4% Can. & 7% U.S. (Pipe only) | Cost of Frht. | Transfer Net Duty | Transfer Sales Tax | Total |
|--|----------|----------|-----------|---------|-----------|---------|-----------|-------------|----------|--|---------------|-------------------|--------------------|-----------|
| 1. Land and Land Rights | | | | | | | | | | | | | | |
| (a) Pipeline | Miles | 85 | 388 | | 32,980 | | | | | | | | | 32,980 |
| (b) Comp.& Meter Sta.Sites | Acres | 85 | 165 | | 14,025 | | | | | | | | | 14,025 |
| Total | | | | | 47,005 | | | | | | | | | 47,005 |
| 2. Main Line and Laterals | | | | | | | | | | | | | | |
| 3. Line Pipe | | | | | | | | | | | | | | |
| (a) 30" x 3/8" 5L x 52 Mainline | Tons | 10,650 | 170.50 | England | 1,815,825 | 181,583 | 199,741 | 108,950 | 72,633 | 46.19 | 491,924 | (72,633) | (199,741) | 2,307,749 |
| (b) 30" x 3/8" 5L x 52 Mainline | Tons | 15,975 | 168.43 | MLwke. | 2,690,669 | 403,600 | 308,458 | 242,220 | 161,380 | 33.79 | 539,795 | (161,380) | (308,458) | 3,230,464 |
| (c) 30" x 1/2" 5L x 52 Sta.& Rivers | Tons | 208 | 167.47 | " | 34,834 | 7,632 | 4,246 | - | 7,632 | 33.79 | 7,028 | (7,632) | (4,246) | 41,862 |
| (d) 8-5/8" x 1/2" Gr. B Blow Off | Tons | 2 | 159.53 | " | 319 | 72 | 39 | | 72 | 33.79 | 68 | (72) | (39) | 387 |
| (e) 6-5/8" x .432" Gr.B Blow Off | Tons | 3 | 166.67 | " | 50 | 11 | 6 | | 11 | 33.79 | 10 | (11) | (6) | 60 |
| (f) 3-1/2" x .300 Gr. B Vents | Tons | 12.2 | 181.87 | " | 2,219 | 499 | 271 | | 499 | 33.79 | 412 | (499) | (271) | 2,631 |
| Total | | | | | 4,543,916 | | 512,761 | | 242,227 | | 1,039,237 | (242,227) | (512,761) | 5,583,153 |
| 4. Other Pipeline Materials | | | | | | | | | | | | | | |
| A Coating Materials | | | | | | | | | | | | | | |
| (a) Primer 10#/Gal. | Imp.Gal. | 6,545 | 1.50 | | 9,818 | | 982 | | | 16.20 | 518 | | (982) | 10,336 |
| (b) Enamel | Tons | 1,785 | 69.00 | | 123,165 | | 12,317 | | | 16.20 | 28,917 | | (12,317) | 152,082 |
| (c) Glass Wrapper | Sq. | 40,163 | 1.03 | | 41,368 | | 4,137 | | | | Incl. 4,137 | | (4,137) | 41,368 |
| (d) Kraft Wrapper 1.33#/Sq. | Sq. | 40,163 | .24 | | 9,639 | | 964 | | | 16.20 | 447 | | (964) | 10,086 |
| Subtotal | | | | | 183,990 | | 18,400 | | | | 29,882 | | (18,400) | 213,872 |
| B Road & Railway Xing Materials | | | | | | | | | | | | | | |
| (a) 34" x 3/8" Casing | Lin.Ft. | 1,373 | 10.23 | | 14,045 | 2,107 | 1,615 | 1,264 | 843 | 26.48 | 2,463 | (843) | (1,615) | 16,508 |
| (b) Seals | Each | 24 | 51.50 | | 1,236 | Incl. | Incl. | | | | Incl. | | | 1,236 |
| (c) Insulators | Each | 48 | 44.00 | | 2,112 | Incl. | Incl. | | | | Incl. | | | 2,112 |
| (d) Cradles | Each | 24 | 24.50 | | 588 | Incl. | Incl. | | | | Incl. | | | 588 |
| Subtotal | | | | | 17,981 | | 1,615 | | 843 | | 2,463 | (843) | (1,615) | 20,444 |
| C Valves & Fittings | | | | | | | | | | | | | | |
| (a) Mainline Valve Assemblies | Each | 6 | 14,400 | | 86,400 |) | |) | | |) | |) | |
| (b) Station Valve Assemblies | Each | 1 | 41,037 | | 41,037 |) | |) | | |) | |) | 133,115 |
| (c) Sales Valve Assemblies | Each | None | | | |) Est. | |) Est. | | |) Est. | |) | 660 |
| (d) Fittings for Drips | Lot | 1 | 4,360 | | 4,360 |) | |) | | |) | |) | Includes |
| (e) Fittings for River Crossings | Lot | None | | | |) | |) | | |) | |) | Freight |
| (f) Misc.Fittings (1% a-e) | Lot | | | | 1,318 |) | |) | | |) | |) | |
| Subtotal | | | | | 133,115 | | 3,075 | | 1,202 | | 660 | (1,202) | (3,075) | 133,775 |
| D Anchors | | | | | | | | | | | | | | |
| (a) 6,000# Weights | Each | 2,830 | 70 | | 254,700 | Incl. | Incl. | | | | Incl. | | | 254,700 |
| Subtotal | | | | | 509,786 | | 23,090 | | 2,045 | | 33,005 | (2,045) | (23,090) | 622,791 |
| E Misc. Matls (1% approx. items 3 & 4) | | | | | | | | | | | | | | 68,602 |
| Total Other Pipeline Materials | | | | | | | | | | | | | | 691,393 |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

WINNIPEG TO MANITOBA - ONTARIO BORDER - 85 MILES - 30"

CENTRAL SECTION A

| <u>Item</u> | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>Source</u> | <u>Amount</u> | <u>Duty</u> | <u>Sales Tax</u> | <u>Duty Rebate</u> | <u>Net Duty</u> | <u>Frts. Rate Incl. 4% Can. & 7% U.S. Frts. Increase (Pipe only)</u> | <u>Cost of Frts.</u> | <u>Transfer Net Duty</u> | <u>Transfer Sales Tax</u> | <u>Total</u> |
|---|-------------|-----------------|----------------------|---------------|---------------|-------------|----------------------|------------------------|---------------------|--|--------------------------|------------------------------|-------------------------------|--------------|
| 5. Aerial Crossings | | | | | | | | | | | | | | - |
| 6. Measuring and Regulating Stations | | | | | | | | | | | | | | - |
| 7. Communications Equipment | Miles | 85 | 150 (+ 1%) | | | | | | | | | | | 12,878 |
| 8. Subtotal (3 thru 7) | | | | | | | | | | | | | | 6,287,424 |
| 9. 40% of Full Duty | | | | | | | | | | | | 244,272 | | 244,272 |
| 10. Full Sales Taxes | | | | | | | | | | | | | 535,851 | 535,851 |
| 11. Contingencies (5% of 8) | | | | | | | | | | | | | | 314,371 |
| 12. Subtotal (1 and 8 thru 11) | | | | | | | | | | | | | | 7,428,923 |
| 13. Pipeline Installation (See details attached) | | | | | | | | | | | | | | 5,325,000 |
| 14. Contingencies (5% of 13) | | | | | | | | | | | | | | 266,250 |
| 15. Subtotal (13 and 14) | | | | | | | | | | | | | | 5,591,250 |
| 16. Engineering and Supervision (5-1/2% of 8 and 13) | | | | | | | | | | | | | | 638,683 |
| 17. Headquarters Facilities | | | | | | | | | | | | | | 45,500 |
| 18. Maintenance Facilities and Equipment | | | | | | | | | | | | | | 227,500 |
| 19. Subtotal (12,15,16, 17 and 18) | | | | | | | | | | | | | | 13,931,856 |
| 20. Preliminary Construction Costs* | | | | | | | | | | | | | | 270,005 |
| 21. Gas for Cleaning and Purging | | | | | | | | | | | | | | 1,410 |
| 22. Stand-by Fee Re Sale of Bonds | | | | | | | | | | | | | | 75,000 |
| 23. Total (19 thru 22) | | | | | | | | | | | | | | 14,278,271 |

*Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED COST OF PIPELINE INSTALLATION

Winnipeg to Manitoba - Ontario Border - 85 Miles - 30"

Central Section A

| | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>(\$000 Omitted) Amount</u> |
|------------------------------|-------------|-----------------|------------------|---------------------------------------|
| 1. Mainline (85 miles) | Lin. Ft. | 448,800 | 11.64 | 5,224 |
| 2. River Crossings | None | | | |
| 3. River Bridge | None | | | |
| 4. Highway & Railway Xings | Lin. Ft. | 1,373 | 35.01 | 48 |
| 5. Mainline Valve Assemblies | Each | 6 | 2,500.00 | 15 |
| 6. Station Valve Assemblies | Each | 1 | 16,000.00 | 16 |
| 7. Meter Regulating Stations | None | | | |
| 8. Testing | Lin. Ft. | 448,800 | .05 | <u>22</u> |
| Total | | | | <u><u>5,325</u></u> |

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Kapusksasing To Toronto Junction (491 Mi. - 30")
Main Line, Laterals And Miscellaneous

| | | |
|-----|--|---------------------|
| 1. | Land and Land Rights | \$ 236,708 |
| 2. | Main Line and Laterals | |
| 3. | Line Pipe (excluding duty) | 32,549,171 |
| 4. | Other Pipeline Materials | 3,968,888 |
| 5. | Aerial Crossings | |
| 6. | Measuring and Regulating Stations | 808,000 |
| 7. | Communications Equipment | 73,650 |
| 8. | Subtotal (3 thru 7) | <u>37,399,709</u> |
| 9. | 40% of Full Duty | 1,103,464 |
| 10. | Full Sales Taxes | 2,596,064 |
| 11. | Contingencies (5% of 8) | 1,869,985 |
| 12. | Subtotal (1 and 8 thru 11) | <u>43,205,930</u> |
| 13. | Pipeline Installation | 30,920,000 |
| 14. | Contingencies (5% of 13) | 1,546,000 |
| 15. | Subtotal (13 and 14) | <u>32,466,000</u> |
| 16. | Engineering and Supervision (5-1/2% of 8 and 13) | 3,757,584 |
| 17. | Headquarters Facilities | 279,500 |
| 18. | Maintenance Facilities and Equipment | 1,397,500 |
| 19. | Subtotal (12, 15, 16, 17 and 18) | <u>81,106,514</u> |
| 20. | Preliminary Construction Costs* | 1,556,502 |
| 21. | Gas for Cleaning and Purging | 6,945 |
| 22. | Stand-by Fee Re Sale of Bonds | 433,000 |
| 23. | Total (19 thru 22) | <u>\$83,102,961</u> |

* Preliminary survey and engineering studies, and
construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

KAPUSKASING TO TORONTO JUNCTION - 491 MILES - 30"

CENTRAL SECTION B

| Item | Unit | Quantity | Unit Cost | Source | Amount | Duty | Sales Tax | Duty Rebate | Net Duty | Fr't. Rate Including + 4% Can. + 7% U.S. Increases (Pipe Only) | Cost Of Fr't. | Transfer Net Duty | Transfer Sales Tax | Total |
|--|----------|----------|-----------|----------|------------|-----------|-----------|-------------|-----------|--|---------------|-------------------|--------------------|------------|
| 1. Land & Land Rights | | | | | | | | | | | | | | |
| (a) Pipeline | Miles | 491 | 388 | | 190,508 | | | | | | | | | 190,508 |
| (b) Compr. & Meter Station Sites | Acres | 280 | 165 | | 46,200 | | | | | | | | | 46,200 |
| Total | | | | | 236,708 | | | | | | | | | 236,708 |
| 2. Main Line and Laterals | | | | | | | | | | | | | | |
| 3. Line Pipe | | | | | | | | | | | | | | |
| (a) 30" x 3/8" 5L x 52 - ML | Tons | 40,005 | 170.50 | England | 6,836,198 | 683,620 | 751,982 | 410,172 | 273,448 | 23.32 | 1,175,585 | (273,448) | (751,382) | 8,011,783 |
| do | Tons | 35,396 | 190.85 | Welland | 6,755,327 | | | | | 27.66 | 979,053 | | | 7,734,380 |
| do | Tons | 62,961 | 172.43 | A.O.S.-H | 10,856,365 | 1,628,454 | 1,245,102 | 377,030 | 651,424 | 49.07 | 2,837,652 | (651,424) | (1,245,192) | 13,674,017 |
| do | Tons | 15,349 | 168.43 | A.O.S.-M | 2,585,232 | 387,785 | 296,473 | 232,671 | 155,114 | 23.45 | 355,034 | (155,114) | (296,473) | 2,945,166 |
| (b) 30" x 1/2" 5L x 52 River & Sta. | Tons | 838 | 167.47 | A.O.S.-M | 140,340 | 21,046 | 156,138 | 12,628 | 8,418 | 23.45 | 15,651 | (8,418) | (156,138) | 159,291 |
| (c) 8-5/8" x 1/2" Grade B Blow-Off | Tons | 10 | 159.53 | do | 1,595 | 359 | 195 | - | 350 | 23.45 | 235 | (359) | (175) | 1,830 |
| (d) 6-5/8" x .432" Grade B Blow-Off | Tons | 4 | 66.67 | do | 267 | 60 | 33 | - | 60 | 23.45 | 24 | (60) | (33) | 361 |
| (e) 3-1/2" x .300" Grade B Vents | Tons | 9 | 181.87 | do | 1,455 | 327 | 178 | - | 327 | 23.45 | 188 | (327) | (178) | 1,643 |
| Total | | | | | 27,176,779 | | 2,450,191 | | 1,089,150 | | 5,372,392 | (1,089,150) | (2,450,191) | 32,549,171 |
| 4. Other Pipeline Material | | | | | | | | | | | | | | |
| A Coating Materials | | | | | | | | | | | | | | |
| (a) Primer (10#/gal.) | Imp.Gal. | 37,807 | 1.50 | | 56,711 | | | | | | | | | 56,711 |
| (b) Enamel | Tons | 10,311 | .69 | | 711,459 | | | | | | | | | 711,459 |
| (c) Glass Wrap (incl. frt.) | Squares | 231,998 | 1.03 | | 238,958 | | | | | | | | | 238,958 |
| (d) Kraft Wrap 40# | Squares | 231,998 | .24 | | 55,680 | | | | | | | | | 55,680 |
| (e) Freight | Tons | 15,160 | | | - | | | | | 16.85 | 255,446 | | | 255,446 |
| Subtotal | | | | | 1,062,808 | | 106,281 | | - | 16.85 | 355,446 | | (106,281) | 1,328,254 |
| B Road & Railway Xing Materials | | | | | | | | | | | | | | |
| (a) 34" x 3/8" Casing | Lin.Ft. | 7,962 | 10.23 | | 81,451 | 12,218 | 9,367 | 7,331 | 2,236 | 16.85 | 9,571 | (2,236) | (9,367) | 91,022 |
| (b) Seals (incl. F.D. & St.) | Each | 166 | 51.50 | | 8,549 | | | | | | | | | 8,549 |
| (c) Insulators (do) | Each | 332 | 44.00 | | 14,608 | | | | | | | | | 14,608 |
| (d) Cradles (do) | Each | 166 | 24.50 | | 4,067 | | | | | | | | | 4,067 |
| (e) Freight (on casing only) | Tons | 568 | | | - | | | | | | | | | - |
| Subtotal | | | | | 108,675 | | 9,367 | | 2,036 | | 9,571 | (2,036) | (9,367) | 118,246 |
| C Valves & Fittings | | | | | | | | | | | | | | |
| (a) Mainline Valve Assemblies | Each | 31 | 14,400 | | 446,400 | | | | | | | | | 446,400 |
| (b) Station Valve Assemblies | Lot | 3 | 41,037 | | 123,111 | | | | | | | | | 123,111 |
| (c) Sales Valve Assemblies | Lot | 8 | 6,000 | | 48,000 | | | | | | | | | 48,000 |
| (d) Fittings For Drips | Lot | 3 | 4,508 | | 13,524 | | | | | | | | | 13,524 |
| (e) Fittings for River Crossings | Lot | None | - | | - | | | | | | | | | - |
| (f) Junction Fitting | Lot | 1 | 20,000 | | 20,000 | | | | | | | | | 20,000 |
| (g) Misc. Fittings (1% of a,b,c,d,e,f) | | | | | 6,510 | | | | | | | | | 6,510 |
| Subtotal | | | | | 657,545 | | 30,225 | | 12,278 | | 10,380 | (12,278) | (30,225) | 667,925 |

TRANS-CANADA PIPE LINES LIMITED
ESTIMATED CONSTRUCTION COST DETAILS
KAPUSKASING TO TORONTO JUNCTION - 491 MILES - 30"
CENTRAL SECTION B

Exhibit 9 FR
Schedule 3
Sheet 3 of 4

| Item | Unit | Quantity | Unit Cost | Source | Amount | Duty | Sales Tax | Duty Rebate | Net Duty | Frts. Rate Including + 4% Can. + 7% U.S. Increases (Pipe Only) | Cost Of Frts. | Transfer Net Duty | Transfer Sales Tax | Total |
|--|------|----------|----------------|--------|-----------|------|-----------|-------------|----------|--|---------------|-------------------|--------------------|------------|
| D Anchors | | | | | | | | | | | | | | |
| (a) 6,000# Weights | Each | 16,370 | 90 | | 1,473,300 | | Incl. | | | | Incl. | | | 1,473,000 |
| Subtotal | | | | | 3,302,328 | | 14,314 | | 14,314 | | 275,397 | (14,314) | (145,873) | 3,577,425 |
| E Misc. Mats. (1% approx. items 3 & 4) | | | | | | | | | | | | | | 391,463 |
| Total Other Pipeline Materials | | | | | | | | | | | | | | 3,968,888 |
| 5. Aerial Crossings | | | | | | | | | | | | | | - |
| 6. Measuring and Regulating Stations | Lot | 8 | 100,000 (+ 1%) | | 808,000 | | Incl. | | Incl. | | Incl. | | | 808,000 |
| 7. Communications Equipment | | | | | | | | | | | | | | 73,650 |
| 8. Subtotal (3 thru 7) | | | | | | | | | | | | | | 37,399,709 |
| 9. 40% of Full Duty | | | | | | | | | | | | 1,103,464 | | 1,103,464 |
| 10. Full Sales Taxes | | | | | | | | | | | | | 2,596,064 | 2,596,064 |
| 11. Contingencies (5% of 8) | | | | | | | | | | | | | | 1,869,985 |
| 12. Subtotal (1 and 8 thru 11) | | | | | | | | | | | | | | 43,205,930 |
| 13. Pipeline Installation (See details attached) | | | | | | | | | | | | | | 30,920,000 |
| 14. Contingencies (5% of 13) | | | | | | | | | | | | | | 1,546,000 |
| 15. Subtotal (13 and 14) | | | | | | | | | | | | | | 32,466,000 |
| 16. Engineering and Supervision (5-1/2% of 8 and 13) | | | | | | | | | | | | | | 3,757,584 |
| 17. Headquarters Facilities | | | | | | | | | | | | | | 279,500 |
| 18. Maintenance Facilities and Equipment | | | | | | | | | | | | | | 1,397,500 |
| 19. Subtotal (12, 15, 16, 17 and 18) | | | | | | | | | | | | | | 81,106,514 |
| 20. Preliminary Construction Costs* | | | | | | | | | | | | | | 1,556,502 |
| 21. Gas for Cleaning and Purging | | | | | | | | | | | | | | 6,945 |
| 22. Stand-by Fee Re Sale of Bonds | | | | | | | | | | | | | | 433,000 |
| 23. Total (19 thru 22) | | | | | | | | | | | | | | 83,102,961 |

* Preliminary survey and engineering studies, and construction management contract advances.

TRANS -CANADA PIPE LINES LIMITED

ESTIMATED COST OF PIPELINE INSTALLATION

Kapuskasing to Toronto Junction - 491 Miles - 30"
Central Section B

| | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>(\$000 Omitted) Amount</u> |
|------------------------------|-------------|-----------------|------------------|---------------------------------------|
| 1. Mainline (491 miles) | Lin.Ft. | 2,592,480 | 11.64 | 30,176 |
| 2. River Crossings | Lin.Ft. | 250 | 500.00 | 125 |
| 3. River Bridge | None | | | |
| 4. Highway & Railway Xings | Lin.Ft. | 7,962 | 35.01 | 279 |
| 5. Mainline Valve Assemblies | Each | 31 | 2,600.00 | 80 |
| 6. Station Valve Assemblies | Each | 3 | 16,000.00 | 48 |
| 7. Meter Regulating Stations | Each | 8 | 10,310.00 | 82 |
| 8. Testing | Lin.Ft. | 2,592,480 | .05 | <u>130</u> |
| Total | | | | <u>30,920</u> |

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Toronto Junction To Sheridan (33 Mi. - 24")
Main Line, Laterals and Miscellaneous

| | | |
|-----|--|---------------------|
| 1. | Land and Land Rights | \$ 47,000 |
| 2. | Main Line and Laterals | |
| 3. | Line Pipe (excluding duty) | 1,234,399 |
| 4. | Other Pipeline Materials | 202,334 |
| 5. | Aerial Crossings | |
| 6. | Measuring and Regulating Stations | 323,200 |
| 7. | Communications Equipment | 4,950 |
| 8. | Subtotal (3 thru 7) | <u>1,764,883</u> |
| 9. | 40% of Full Duty | 72,298 |
| 10. | Full Sales Taxes | 144,640 |
| 11. | Contingencies (5% of 8) | 88,244 |
| 12. | Subtotal (1 and 8 thru 11) | <u>2,117,065</u> |
| 13. | Pipeline Installation | 847,320 |
| 14. | Contingencies (5% of 13) | 42,366 |
| 15. | Subtotal (13 and 14) | <u>889,686</u> |
| 16. | Engineering and Supervision (5-1/2% of 8 and 13) | 143,672 |
| 17. | Headquarters Facilities | |
| 18. | Maintenance Facilities and Equipment | |
| 19. | Subtotal (12, 15, 16, 17 and 18) | <u>3,150,423</u> |
| 20. | Preliminary Construction Costs* | |
| 21. | Gas for Cleaning and Purging | 229 |
| 22. | Stand-by Fee Re Sale of Bonds | |
| 23. | Total (19 thru 22) | <u>\$ 3,150,652</u> |

* Preliminary survey and engineering studies, and
construction management contract advances.

| TORONTO JUNCTION TO SHERIDAN - 33 MILES - 24" | | | | | | | | | | | Cost of Freight Including + 4% Can. & + 7% U.S. | Transfer Net Duty | Transfer Sales Tax | Total |
|---|----------|----------|----------------|---------|-----------|---------|-----------|-------------|----------|--------|---|-------------------|--------------------|-------|
| Item | Unit | Quantity | Unit Cost | Source | Amount | Duty | Sales Tax | Duty Rebate | Net Duty | | | | | |
| 1. Land & Land Rights | | | | | | | | | | | | | | |
| (a) Pipe Line | Miles | 33 | 1,000 | | 33,000 | | | | | | | | 33,000 | |
| (b) Comp. & Meter Sta. Sites | Acres | 13 | | | 14,000 | | | | | | | | 14,000 | |
| Subtotal | | | | | 47,000 | | | | | | | | 47,000 | |
| 2. Main Line and Laterals | | | | | | | | | | | | | | |
| 3. Line Pipe | | | FOB McKeesport | | | | | | | 9.57/T | | | | |
| (a) 24" x 14" 5L x 52 ML | Tons | 3,264 | 183.47 | Welland | 598,846 | 89,827 | 68,691 | 53,896 | 35,931 | 31,236 | (35,931) | (68,691) | 630,082 | |
| (b) 24" x 3/8" 5L x 52 H Line Pipe | Tons | 3,372 | 169.46 | Welland | 571,419 | 85,713 | 65,531 | 51,428 | 34,285 | 32,270 | (34,285) | (65,531) | 603,689 | |
| (c) Other Pipe | Tons | 2.6 | | Welland | 628 | | | | | | | | 628 | |
| Total | | | | | 1,170,893 | 175,540 | 134,222 | 105,324 | 70,216 | 63,506 | (70,216) | (134,222) | 1,234,399 | |
| 4. Other Pipeline Materials | | | | | | | | | | | | | | |
| A Coating Materials | | | | | | | | | | | | | | |
| (a) Primer @ 10 lbs./gal. | Imp.Gal. | 1,980 | 1.50 | | 2,970 | | | | | | | | 2,970 | |
| (b) Enamel | Tons | 554 | 69.00 | | 38,226 | | | | | | | | 38,226 | |
| (c) Glass Wrap (Frt.Incl.) | Squares | 12,507 | 1.03 | | 12,882 | | | | | | | | 12,882 | |
| (d) Kraft Wrap (1.335 lb./sq.) | Squares | 12,507 | 0.24 | | 3,002 | | | | | | | | 3,002 | |
| Frt. (Est.) | | | | | | | | | | 2,000 | | | 2,000 | |
| Subtotal | | | | | 57,080 | | 5,708 | | | 2,000 | | (5,708) | 59,080 | |
| B Road & Railway Xing Materials | | | | | | | | | | | | | | |
| (a) 30" x 3/8" Casing | Lin.Feet | 1,764 | 8.90 | | 15,700 | | | | | | | | 15,700 | |
| (b) Seals (incl. F.D. & S.T.) | Each | 34 | 51.50 | | 1,751 | | | | | | | | 1,751 | |
| (c) Insulators (do) | Each | 137 | 44.00 | | 6,028 | | | | | | | | 6,028 | |
| (d) Cradles (do) | | 34 | 24.50 | | 833 | | | | | | | | 833 | |
| Frt. (incl. + 7%) | Tons | 104.6 | 16.44 | | | | | | | 1,719 | | | 1,719 | |
| Subtotal | | | | | 24,312 | | 1,805 | | 942 | 1,719 | (942) | (1,805) | 26,031 | |
| C Valves & Fittings | | | | | | | | | | | | | | |
| (a) Mainline Valve Assemblies | Each | 5 | 11,200 | | 56,000 | | | | | | | | 56,000 | |
| (b) Sales Valve Assemblies | Lot | 4 | 6,000 | | 24,000 | | | | | | | | 24,000 | |
| (c) Connection to existing 20" line at Sheridan | Lot | 1 | 1,000 | | 1,000 | | | | | | | | 1,000 | |
| (d) Miscellaneous Fittings (1% a, b, c) | | | | | 810 | | | | | | | | 810 | |
| Frt. (Est.) | | | | | | | | | | 1,500 | | | 1,500 | |
| Subtotal | | | | | 81,810 | | 2,905 | | 1,140 | 1,500 | (1,140) | (2,905) | 83,310 | |
| D Anchors @ 1.5¢/lb. | | | | | | | | | | | | | | |
| 6,000# Concrete Weights | Each | 200 | 90 | | 18,000 | | | | | | | | 18,000 | |
| Subtotal | | | | | 181,202 | | 10,418 | | 2,082 | 5,219 | (2,082) | (10,418) | 186,421 | |
| E Misc. Matls. (1% approx. items 3 & 4) | | | | | | | | | | | | | 15,913 | |
| Total Other Pipeline Materials | | | | | | | | | | | | | 202,334 | |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

TORONTO JUNCTION TO SHERIDAN - 33 MILES - 24"

| <u>Item</u> | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>Source</u> | <u>Amount</u> | <u>Duty</u> | <u>Sales Tax</u> | <u>Duty Rebate</u> | <u>Net Duty</u> | <u>Cost of Freight Including + 4% Can. & + 7% U.S.</u> | <u>Transfer Net Duty</u> | <u>Transfer Sales Tax</u> | <u>Total</u> |
|---|-------------|-----------------|----------------------|---------------|---------------|-------------|----------------------|------------------------|---------------------|--|------------------------------|-----------------------------------|--------------|
| 5. Aerial Crossings | | | | | | | | | | | | | - |
| 6. Measuring and Regulating Stations | | 4 | 80,000(+1%) | | | | | | | | | | 323,200 |
| 7. Communications Equipment | Miles | 33 | 150 | | | | | | | | | | 4,950 |
| 8. Subtotal (3 thru 7) | | | | | | | | | | | | | 1,764,883 |
| 9. 40% of Full Duty | | | | | | | | | | | 72,298 | | 72,298 |
| 10. Full Sales Taxes | | | | | | | | | | | | 144,640 | 144,640 |
| 11. Contingencies (5% of 8) | | | | | | | | | | | | | 88,244 |
| 12. Subtotal (1 and 8 thru 11) | | | | | | | | | | | | | 2,117,065 |
| 13. Pipeline Installation (See details attached) | | | | | | | | | | | | | 847,320 |
| 14. Contingencies (5% of 13) | | | | | | | | | | | | | 42,366 |
| 15. Subtotal (13 and 14) | | | | | | | | | | | | | 889,686 |
| 16. Engineering and Supervision (5-1/2% of 8 and 13) | | | | | | | | | | | | | 143,672 |
| 17. Headquarters Facilities | | | | | | | | | | | | | - |
| 18. Maintenance Facilities and Equipment | | | | | | | | | | | | | - |
| 19. Subtotal (12,15,16, 17 and 18) | | | | | | | | | | | | | 3,150,423 |
| 20. Preliminary Construction Costs* | | | | | | | | | | | | | - |
| 21. Gas for Cleaning and Purging | | | | | | | | | | | | | 229 |
| 22. Stand-by Fee Re Sale of Bonds | | | | | | | | | | | | | - |
| 23. Total (19 thru 22) | | | | | | | | | | | | | 3,150,652 |

*Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED COST OF PIPELINE INSTALLATION

Toronto Junction to Sheridan - 33 Miles - 24"

| | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | (\$000 Omitted) <u>Amount</u> |
|------------------------------|-------------|-----------------|------------------|-------------------------------------|
| 1. Mainline (33 miles) | Lin. Ft. | 174,240 | 4.40 | 767 |
| 2. River Crossings | None | | | |
| 3. River Bridge | None | | | |
| 4. Highway & Railway Xings | Lin. Ft. | 1,764 | 28.00 | 49 |
| 5. Mainline Valve Assemblies | Each | 4 | 2,480.00 | 10 |
| 6. Station Valve Assemblies | None | | | |
| 7. Meter Regulating Stations | Each | 5 | 2,500.00 | 12 |
| 8. Testing | Lin. Ft. | 174,240 | .05 | <u>9</u> |
| Total | | | | <u>847</u> |

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Toronto Junction To Montreal (308 Mi. - 20")
Main Line, Laterals and Miscellaneous

| | | |
|-----|--|---------------------|
| 1. | Land and Land Rights | \$ 1,145,600 |
| 2. | Main Line and Laterals | |
| 3. | Line Pipe (excluding duty) | 8,646,623 |
| 4. | Other Pipeline Materials | 1,121,143 |
| 5. | Aerial Crossings | |
| 6. | Measuring and Regulating Stations | 1,292,800 |
| 7. | Communications Equipment | 46,200 |
| 8. | Subtotal (3 thru 7) | <u>11,106,766</u> |
| 9. | 40% of Full Duty | 498,115 |
| 10. | Full Sales Taxes | 986,579 |
| 11. | Contingencies (5% of 8) | 555,338 |
| 12. | Subtotal (1 and 8 thru 11) | <u>14,292,398</u> |
| 13. | Pipeline Installation | 7,685,000 |
| 14. | Contingencies (5% of 13) | 384,250 |
| 15. | Subtotal (13 and 14) | <u>8,069,250</u> |
| 16. | Engineering and Supervision (5-1/2% of 8 and 13) | 1,033,547 |
| 17. | Headquarters Facilities | 72,000 |
| 18. | Maintenance Facilities and Equipment | 361,000 |
| 19. | Subtotal (12, 15, 16, 17 and 18) | <u>23,828,195</u> |
| 20. | Preliminary Construction Costs* | 1,523,381 |
| 21. | Gas for Cleaning and Purging | 1,948 |
| 22. | Stand-by Fee Re Sale of Bonds | 273,000 |
| 23. | Total (19 thru 22) | <u>\$25,626,524</u> |

* Preliminary survey and engineering studies, and
construction management contract advances

| Item | Unit | Quantity | Unit Cost | Source | Amount | Duty | Sales Tax | Duty Rebate | Net Duty | Cost of Freight Incl. + 4% Canadian | Transfer Net Duty | Transfer Sales Tax | Total |
|---------------------------------------|----------|----------|-----------|----------------|-----------|-----------|-----------|-------------|----------|-------------------------------------|-------------------|--------------------|-----------|
| 1. Land & Land Rights | | | | | | | | | | | | | |
| (a) Pipeline | Miles | 308 | 3,200 | | 985,600 | | | | | | | | 985,600 |
| (b) Comp.& Meter Sta.Sites | Acres | 160 | 1,000 | | 160,000 | | | | | | | | 160,000 |
| Subtotal | | | | | 1,145,600 | | | | | | | | 1,145,600 |
| 2. Main Line and Laterals | | | | | | | | | | | | | |
| 3. Line Pipe | | | | | | | | | | | | | |
| | | | | FOB McKeesport | | | | | | 13.60/7 | | | |
| (a) 20" x 1 1/4" 5L x 52 ML | Tons | 42,399 | 136.40 | Welland | 7,903,174 | 1,185,476 | 205,431 | 711,216 | 474,190 | 576,628 | (474,190) | (905,431) | 8,479,800 |
| (b) 20" x 1 1/2" 5L x 52 River & Sta. | Tons | 885 | 170.45 | do | 150,848 | 22,627 | 17,300 | 13,575 | 9,052 | 12,036 | (9,052) | (17,300) | 162,884 |
| (c) 20" x 3/8" 5L x 42 Sta.Valves | Tons | 21 | 168.50 | do | 3,539 | 530 | 406 | 318 | 212 | 286 | (212) | (406) | 3,825 |
| (d) Other Pipe | Tons | 14 | | do | 3,331 | | | | | | | | 3,331 |
| Adjustment to correct prior costing | | | | | (3,217) | | | | | | | | (3,217) |
| Total | | | | | 8,057,675 | 1,208,633 | 223,137 | 725,172 | 483,454 | 588,948 | (483,454) | (223,137) | 8,646,623 |
| 4. Other Pipeline Materials | | | | | | | | | | | | | |
| A Coating Materials | | | | | | | | | | | | | |
| (a) Primer 10 lbs./gal. | Imp.Gal. | 15,500 | 1.50 | | 23,250 | | | | | Incl. | | | 23,250 |
| (b) Enamel | Tons | 4,340 | 69.00 | | 299,460 | | | | | Incl. | | | 299,460 |
| (c) Glass Wrap (incl.frt.) | Squares | 97,960 | 1.03 | | 100,899 | | | | | Incl. | | | 100,899 |
| (d) Kraft Wrap (1.335 lbs./sq.) | Squares | 97,960 | 0.24 | | 23,510 | | | | | Incl. | | | 23,510 |
| Freight (incl. + 4%) | Tons | 4,483 | 4.03 | | 18,000 | | | | | | | | 18,000 |
| Subtotal | | | | | 465,119 | | 44,712 | | | | | (44,712) | 465,119 |
| B Road & Railway Xing Materials | | | | | | | | | | | | | |
| (a) 24" x 1 1/4" Casing | Lin.Feet | 5,507 | 7.05 | | 38,824 | | | | | | | | 38,824 |
| (b) Seals incl. F.D. & S.T. | Each | 142 | 51.50 | | 7,313 | | | | | | | | 7,313 |
| (c) Insulators | Each | 236 | 44.00 | | 10,384 | | | | | | | | 10,384 |
| (d) Cradles | Each | 142 | 24.50 | | 3,479 | | | | | | | | 3,479 |
| Freight (incl. + 4%) | | 147 | 18.84 | | 2,769 | | | | | | | | 2,769 |
| Subtotal | | | | | 62,769 | 2,330 | 4,465 | | 2,330 | | (2,330) | (4,465) | 62,769 |
| C Valves & Fittings | | | | | | | | | | | | | |
| (a) Mainline Valve Assemblies | Each | 19 | 11,200 | | 212,800 | | | | | | | | 212,800 |
| (b) Station Valve Assemblies | Lot | 1 | 38,900 | | 38,900 | | | | | | | | 38,900 |
| (c) Sales Valve Assemblies | Lot | 16 | 6,000 | | 96,000 | | | | | | | | 96,000 |
| (d) Fittings for Drips | Lot | 1 | 4,500 | | 4,500 | | | | | | | | 4,500 |
| (e) Misc. Fittings (1% a,b,c,d) | | | | | 3,522 | | | | | | | | 3,522 |
| Frt. (Est.) | | | | | 6,360 | | | | | | | | 6,360 |
| Subtotal | | | | | 362,082 | 12,331 | 14,265 | | 12,331 | | (12,331) | (14,265) | 362,082 |
| D Anchors | | | | | | | | | | | | | |
| (a) 3,000# Concrete Weights | | | | | | | | | | | | | |
| @ 1.5¢/lb. | Each | 1,828 | 45 | | 82,260 | | | | | | | | 82,260 |
| (b) 1-3/4" Concrete Coating | | | | | | | | | | | | | |
| @ 5¢/lb. | Lb. | 843,000 | .05 | | 42,150 | | | | | | | | 42,150 |
| Subtotal | | | | | 124,410 | | | | | | | | 124,410 |
| Subtotal Other Pipeline Materials | | | | | 1,014,380 | | 63,442 | | 14,661 | | (14,661) | (63,442) | 1,014,380 |
| E Misc.Matls.(1% approx.items 3 & 4) | | | | | | | | | | | | | |
| Total Other Pipeline Materials | | | | | | | | | | | | | 106,763 |
| | | | | | | | | | | | | | 1,121,143 |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

TORONTO JUNCTION TO MONTREAL - 308 MILES - 30"

EASTERN SECTION

| <u>Item</u> | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>Source</u> | <u>Amount</u> | <u>Duty</u> | <u>Sales Tax</u> | <u>Duty Rebate</u> | <u>Net Duty</u> | <u>Cost of Freight Incl. + 4% Canadian</u> | <u>Transfer Net Duty</u> | <u>Transfer Sales Tax</u> | <u>Total</u> |
|---|-------------|-----------------|----------------------|---------------|---------------|-------------|----------------------|------------------------|---------------------|--|------------------------------|-----------------------------------|--------------|
| 5. Aerial Crossings | | | | | | | | | | | | | - |
| 6. Measuring and Regulating Stations | Lot | 16 | 80,000(+1%) | | 1,292,800 | | | | | | | | 1,292,800 |
| 7. Communications Equipment | Miles | 308 | 150 | | 46,200 | | | | | | | | 46,200 |
| 8. Subtotal (3 thru 7) | | | | | | | | | | | | | 11,106,766 |
| 9. 40% of Full Duty | | | | | | | | | | | 498,115 | | 498,115 |
| 10. Full Sales Taxes | | | | | | | | | | | | 986,579 | 986,579 |
| 11. Contingencies (5% of 8) | | | | | | | | | | | | | 555,338 |
| 12. Subtotal (1 and 8 thru 11) | | | | | | | | | | | | | 14,292,398 |
| 13. Pipeline Installation (See details attached) | | | | | | | | | | | | | 7,685,000 |
| 14. Contingencies (5% of 13) | | | | | | | | | | | | | 384,250 |
| 15. Subtotal (13 and 14) | | | | | | | | | | | | | 8,069,250 |
| 16. Engineering and Supervision (5-1/2% of 8 and 13) | | | | | | | | | | | | | 1,033,547 |
| 17. Headquarters Facilities | | | | | | | | | | | | | 72,000 |
| 18. Maintenance Facilities and Equipment | | | | | | | | | | | | | 361,000 |
| 19. Subtotal (12,15,16, 17 and 18) | | | | | | | | | | | | | 23,828,195 |
| 20. Preliminary Construction Costs* | | | | | | | | | | | | | 1,523,381 |
| 21. Gas for Cleaning and Purging | | | | | | | | | | | | | 1,948 |
| 22. Stand-by Fee Re Sale of Bonds | | | | | | | | | | | | | 273,000 |
| 23. Total (19 thru 22) | | | | | | | | | | | | | 25,626,524 |

*Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED COST OF PIPELINE INSTALLATION

Eastern Section - Toronto Junction to Montreal - 308 Miles - 20"

| | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>(\$000 Omitted) Amount</u> |
|------------------------------|-------------|-----------------|------------------|---------------------------------------|
| 1. Mainline (308 miles) | Lin.Ft. | 1,626,240 | 4.02 | 6,539 |
| 2. River Crossings | Lin. Ft. | 6,000 | 125.00 | 750 |
| 3. River Bridge | None | | | |
| 4. Highway & Railway Xings | Lin.Ft. | 4,634 | 32.15 | 149 |
| 5. Mainline Valve Assemblies | Each | 20 | 2,480.00 | 50 |
| 6. Station Valve Assemblies | Each | 1 | 75,000.00 | 75 |
| 7. Meter Regulating Stations | Each | 16 | 2,500.00 | 40 |
| 8. Testing | Lin.Ft. | 1,626,240 | .05 | <u>82</u> |
| Total | | | | <u><u>7,685</u></u> |

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Ottawa Lateral (40 Mi. - 12-3/4")
Main Line, Laterals and Miscellaneous

| | | |
|-----|--|--------------------|
| 1. | Land and Land Rights | \$ 45,000 |
| 2. | Main Line and Laterals | |
| 3. | Line Pipe (excluding duty) | 714,563 |
| 4. | Other Pipeline Materials | 96,104 |
| 5. | Aerial Crossings | |
| 6. | Measuring and Regulating Stations | 70,000 |
| 7. | Communications Equipment | 6,000 |
| 8. | Subtotal (3 thru 7) | <u>886,667</u> |
| 9. | 40% of Full Duty | 37,546 |
| 10. | Full Sales Taxes | 76,820 |
| 11. | Contingencies (5% of 8) | 44,333 |
| 12. | Subtotal (1 and 8 thru 11) | <u>1,090,366</u> |
| 13. | Pipeline Installation | 762,000 |
| 14. | Contingencies (5% of 13) | 38,100 |
| 15. | Subtotal (13 and 14) | <u>800,100</u> |
| 16. | Engineering and Supervision (5-1/2% of 8 and 13) | 90,677 |
| 17. | Headquarters Facilities | |
| 18. | Maintenance Facilities and Equipment | |
| 19. | Subtotal (12, 15, 16, 17 and 18) | <u>1,981,143</u> |
| 20. | Preliminary Construction Costs* | 110,071 |
| 21. | Gas for Cleaning and Purging | 115 |
| 22. | Stand-by Fee Re Sale of Bonds | |
| 23. | Total (19 thru 22) | <u>\$2,091,329</u> |

* Preliminary survey and engineering studies, and
construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

OTTAWA LATERAL - 40 MILES - 12-3/4"

| Item | Unit | quantity | Unit Cost | Source | Amount | Duty | Sales Tax | Duty Rebate | Net Duty | Frts. Rate Including + 4% Can. + 7% U.S. Increases (Pipe Only) | Cost Of Frts. | Transfer Net Duty | Transfer Sales Tax | Total |
|--|----------|----------|-----------|--------|---------|--------|-----------|-------------|----------|--|---------------|-------------------|--------------------|---------|
| 1. Land & Land Rights | | | | | | | | | | | | | | |
| (a) Pipeline | Miles | 40 | 1,000 | | 40,000 | | | | | | | | | 40,000 |
| (b) Compr. & Meter Station Sites | Acres | 5 | 1,000 | | 5,000 | | | | | | | | | 5,000 |
| Total | | | | | 45,000 | | | | | | | | | 45,000 |
| 2. Main Line and Laterals | | | | | | | | | | | | | | |
| 3. Line Pipe | | | | | | | | | | | | | | |
| (a) 12-3/4" x 1/4" Gr. B ML | Tons | 3,516 | 176.08 | | 619,027 | 92,863 | 71,196 | 55,489 | 37,374 | 26.21 | 92,139 | (37,374) | (71,196) | 711,236 |
| (b) 12-3/4" x 1/2" Gr. B River Pipe | Tons | 17 | 165.20 | | 2,808 | 420 | 323 | 251 | 169 | 26.21 | 446 | (169) | (323) | 3,254 |
| (c) 3-1/2" x .300 Gr. B Blow Off & Vents | Tons | .4 | 181.87 | | 73 | 9 | 8 | 6 | 3 | | | (3) | 8 | 73 |
| Total | | | | | 621,978 | 93,292 | 71,527 | 55,746 | 37,546 | | 92,585 | (37,546) | (71,527) | 714,563 |
| 4. Other Pipeline Materials | | | | | | | | | | | | | | |
| A Coating Materials | | | | | | | | | | | | | | |
| (a) Primer (10#/gal.) | Imp.Gal. | 1,280 | 1.50 | | 1,920 | | | | | | | | | 1,920 |
| (b) Enamel | Tons | 500 | .69 | | 34,500 | | | | | | | | | 34,500 |
| (c) Glass Wrap (incl. frt.) | Squares | 8,160 | 1.03 | | 8,405 | | | | | | | | | 8,405 |
| (d) Kraft Wrap (4C lbs./sq.) | Squares | 8,160 | .24 | | 1,958 | | | | | | | | | 1,958 |
| (e) Freight | Tons | 669.6 | 11.15 | | | | | | | 11.15 | 7,469 | | | 7,469 |
| Subtotal | | | | | 46,783 | | 4,678 | | - | | 7,469 | | (4,678) | 54,252 |
| B Road & Railway Xing Materials | | | | | | | | | | | | | | |
| (a) 16" x 1/4" Casing 42.05 lbs./ft | Lin.Ft. | 177 | 3.68 | | 651 | | 100 | | | | | | (100) | 651 |
| (b) Seals (incl. F.D. & S.T.) | Each | 4 | 24.90 | | 100 | | | | | | | | | 100 |
| (c) Insulators (do) | Each | 8 | 21.20 | | 170 | | | | | | | | | 170 |
| (d) Cradles (do) | Each | 4 | 9.60 | | 38 | | | | | | | | | 38 |
| (e) Freight (on casing only) | Tons | 3.72 | | | | | | | | 26.21 | 98 | | | 98 |
| Subtotal | | | | | 959 | | 100 | | - | | 98 | | (100) | 1,057 |
| C Valves & Fittings | | | | | | | | | | | | | | |
| (a) Mainline Valve Assemblies | Each | 2 | 4,622 | | 9,244 | | | | | | | | | 9,244 |
| (b) Sales Valve Assemblies | Lot | 1 | 6,000 | | 6,000 | | | | | | | | | 6,000 |
| (c) Connection to 20" Line - Est. | Lot | 1 | 12,000 | | 12,000 | | | | | | | | | 12,000 |
| (d) Misc. Fittings (1% of a, b, c) | | | | | 272 | | | | | | | | | 272 |
| Subtotal | | | | | 27,516 | | 480 | | - | | 250 | | (480) | 27,766 |
| D Anchors | | | | | | | | | | | | | | |
| (a) 6,000# Weights | Each | 47 | 90 | | 4,230 | | | | | | | | | 4,230 |
| Subtotal | | | | | 4,230 | | | | - | | | | | 4,230 |
| E Misc. Matls. (1% approx. items 3 & 4) | | | | | 79,488 | | 5,258 | | - | | 7,817 | | (5,258) | 87,305 |
| Total Other Pipeline Materials | | | | | | | | | | | | | | 96,104 |

5. Aerial Crossings

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

OTTAWA LATERAL - 40 MILES - 12-3/4"

| <u>Item</u> | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>Source</u> | <u>Amount</u> | <u>Duty</u> | <u>Sales Tax</u> | <u>Duty Rebate</u> | <u>Net Duty</u> | <u>Frts. Rate Including + 4% Can. + 7% U.S. Increases (Pipe Only)</u> | <u>Cost Of Frts.</u> | <u>Transfer Net Duty</u> | <u>Transfer Sales Tax</u> | <u>Total</u> |
|---|-------------|-----------------|----------------------|---------------|---------------|-------------|----------------------|------------------------|---------------------|---|--------------------------|------------------------------|-----------------------------------|--------------|
| 6. Measuring and Regulating Stations | | | | | | | | | | | | | | 70,000 |
| 7. Communications Equipment | | | | | | | | | | | | | | 6,000 |
| 8. Subtotal (3 thru 7) | | | | | | | | | | | | | | 886,667 |
| 9. 40% of Full Duty | | | | | | | | | | | | 37,546 | | 37,546 |
| 10. Full Sales Taxes | | | | | | | | | | | | | 76,785 | 76,820 |
| 11. Contingencies (5% of 8) | | | | | | | | | | | | | | 44,333 |
| 12. Subtotal (1 and 8 thru 11) | | | | | | | | | | | | | | 1,090,366 |
| 13. Pipeline Installation (See Details Attached) | | | | | | | | | | | | | | 762,000 |
| 14. Contingencies (5% of 13) | | | | | | | | | | | | | | 38,100 |
| 15. Subtotal (13 and 14) | | | | | | | | | | | | | | 800,100 |
| 16. Engineering and Supervision (5-1/2% of 8 and 13) | | | | | | | | | | | | | | 90,677 |
| 17. Headquarters Facilities | | | | | | | | | | | | | | - |
| 18. Maintenance Facilities and Equipment | | | | | | | | | | | | | | - |
| 19. Subtotal (12, 15, 16, 17 and 18) | | | | | | | | | | | | | | 1,981,143 |
| 20. Preliminary Construction Costs* | | | | | | | | | | | | | | 110,071 |
| 21. Gas for Cleaning and Purging | | | | | | | | | | | | | | 115 |
| 22. Stand-by Fee Re Sale of Bonds | | | | | | | | | | | | | | - |
| 23. Total (19 thru 22) | | | | | | | | | | | | | | 2,091,329 |

* Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED COST OF PIPELINE INSTALLATION

Ottawa Laterel - 40 Miles - 12 3/4"

| | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>(\$000 Omitted) Amount</u> |
|------------------------------|-------------|-----------------|------------------|---------------------------------------|
| 1. Mainline (40 miles) | Lin. Ft. | 212,200 | 3.41 | 724 |
| 2. River Crossings | None | | | |
| 3. River Bridge | None | | | |
| 4. Highway & Railway Xings | Lin. Ft. | 177 | 18.00 | 3 |
| 5. Mainline Valve Assemblies | Each | 2 | 1,500.00 | 3 |
| 6. Station Valve Assemblies | None | | | |
| 7. Meter Regulating Stations | Each | 1 | 20,000.00 | 20 |
| 8. Testing | Lin. Ft. | 212,200 | .05 | 11 |
| 9. Connection to 20" Line | Lot | 1 | | <u>1</u> |
| Total | | | | <u><u>762</u></u> |

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Emerson Lateral Line
Main Line, Laterals And Miscellaneous

| | | |
|-----|--|--------------------|
| 1. | Land and Land Rights | \$ 41,600 |
| 2. | Main Line and Laterals | |
| 3. | Line Pipe (excluding duty) | 1,797,499 |
| 4. | Other Pipeline Materials | 171,628 |
| 5. | Aerial Crossings | - |
| 6. | Measuring and Regulating Stations | 90,900 |
| 7. | Communications Equipment | 7,200 |
| 8. | Subtotal (3 thru 7) | <u>2,067,227</u> |
| 9. | 40% of Full Duty | 93,377 |
| 10. | Full Sales Taxes | 187,279 |
| 11. | Contingencies (5% of 8) | 103,361 |
| 12. | Subtotal (1 and 8 thru 11) | <u>2,492,844</u> |
| 13. | Pipeline Installation | 1,064,000 |
| 14. | Contingencies (5% of 13) | 53,200 |
| 15. | Subtotal (13 and 14) | <u>1,117,200</u> |
| 16. | Engineering and Supervision (5-1/2% of 8 and 13) | 172,217 |
| 17. | Headquarters Facilities | - |
| 18. | Maintenance Facilities and Equipment | - |
| 19. | Subtotal (12, 15, 16, 17 and 18) | <u>3,782,261</u> |
| 20. | Preliminary Construction Costs* | 151,205 |
| 21. | Gas for Cleaning and Purging | 443 |
| 22. | Stand-by Fee Re Sale of Bonds | - |
| 23. | Total (19 thru 22) | <u>\$3,933,909</u> |

* Preliminary survey and engineering studies, and
construction management contract advances.

| Item | Unit | Quantity | Unit Cost | Source | Amount | Duty | Sales Tax | Duty Rebate | Net Duty | Frht. Rate Including + 4% Canadian & 7% U.S. increases (Pipe only) | Cost of Frht. | Transfer Net Duty | Transfer Sales Tax | Total |
|--|---------|----------|-----------|--------|-----------|---------|-----------|-------------|----------|--|---------------|-------------------|--------------------|-----------|
| 1. Land & Land Rights | | | | | | | | | | | | | | |
| (a) Pipeline | Miles | 48 | 825 | | 39,600 | | | | | | | | | 39,600 |
| (b) Compr.& Meter Station Sites | Acres | 5 | 400 | | 2,000 | | | | | | | | | 2,000 |
| Total | | | | | 41,600 | | | | | | | | | 41,600 |
| 2. Main Line and Laterals | | | | | | | | | | | | | | |
| 3. Line Pipe | | | | | | | | | | | | | | |
| (a) 24" x 1/4" 5L x 52 - ML | Tons | 7,918 | 186.47 | | 1,476,469 | 221,470 | 169,794 | 132,882 | 88,588 | | 274,517 | (88,588) | (169,794) | 1,750,986 |
| (b) 24" x 1/2" Gr. B - River | Tons | 232 | 164.32 | | 38,138 | 5,720 | 4,326 | 3,432 | 2,288 | | 8,043 | (2,288) | (4,386) | 46,181 |
| (c) 8-5/8" x 1/2" Gr.B - Blow Off | Tons | .8 | 159.30 | | 127 | 19 | 15 | 11 | 8 | | 27 | (8) | (15) | 154 |
| (d) 6-5/8" x 3/8" Gr.B - Blow Off | Tons | .45 | 163.30 | | 73 | 11 | 8 | 7 | 4 | | 16 | (4) | (8) | 89 |
| (e) 3-1/2 x .300 Gr. B - Vents | Tons | .41 | 181.87 | | 75 | 11 | 9 | 7 | 4 | | 14 | (4) | (9) | 89 |
| Total | | | | | 1,514,882 | | 174,212 | | 90,892 | 34.67 | 282,617 | (90,892) | (174,212) | 1,797,499 |
| 4. Other Pipeline Materials | | | | | | | | | | | | | | |
| A Coating Materials | | | | | | | | | | | | | | |
| (a) Primer | Imp.Gas | 2,880 | 1.50 | | 4,320 | | | | | | | | | 4,320 |
| (b) Enamel | Tons | 806 | 69.00 | | 55,614 | | | | | | | | | 55,614 |
| (c) Glass Wrapper | Squares | 18,192 | 1.03 | | 18,738 | | | | | | | | | 18,738 |
| (d) Kraft Wrapper | Squares | 18,192 | .24 | | 4,366 | | | | | | | | | 4,366 |
| (e) Freight | Tons | 1,314 | | | | | | | | 17.35 | 22,800 | | | 22,800 |
| (f) Full Dominion Sales Tax | | | | | | | 8,304 | | | | | | (8,304) | - |
| Subtotal | | | | | 83,038 | | 8,304 | | | | 22,800 | | (8,304) | 105,838 |
| B Road & Railway Xing Materials | | | | | | | | | | | | | | |
| (a) 30" x 3/8" Casing | Lin.Ft. | 200 | 8.90 | | 1,780 | | | | | | | | | 1,780 |
| (b) Seals incl. F.D.& S.T. | Each | 4 | 51.50 | | 206 | | | | | | | | | 206 |
| (c) Insulators incl. F.D.& S.T. | Each | 8 | 44.00 | | 352 | | | | | | | | | 352 |
| (d) Cradles incl. F.D. & S.T. | Each | 4 | 24.50 | | 98 | | | | | | | | | 98 |
| (e) Freight | | | | | | | | | | 34.67 | 404 | | | 404 |
| (f) 40% of Full Duty | | | | | | 365 | | 219 | 146 | | | (146) | | - |
| (g) Full Dominion Sales Taxes | | | | | | | 280 | | | | | | (280) | - |
| Subtotal | | | | | 2,436 | | 280 | | 146 | | 404 | | (146) | 2,840 |
| C Valves & Fittings | | | | | | | | | | | | | | |
| (a) Main Valve Assemblies | Each | 3 | 11,200 | | 33,600 | | | | | | | | | 33,600 |
| (b) Connection to 34" Line | Each | 1 | 5,000 | | 5,000 | | | | | | | | | 5,000 |
| (c) Misc.Fittings (1% of a and b) | | | | | 386 | | | | | | | | | 386 |
| (d) Freight | | | | | | | | | | | 720 | | | 720 |
| (e) 40% of Full Duties | | | | | | 5,847 | | 3,508 | 2,339 | | | (2,339) | | - |
| (f) Full Dominion Sales Taxes | | | | | | | 4,483 | | | | | | (4,483) | - |
| Subtotal | | | | | 38,986 | | 4,483 | | 2,339 | | 720 | | (4,483) | 37,706 |
| D Anchors | | | | | | | | | | | | | | |
| (a) 6,000# Weights | Each | 30 | 90 | | 2,700 | | | | | | | | | 2,700 |
| Subtotal | | | | | 127,160 | | 13,067 | | 2,485 | | 23,924 | | (13,067) | 151,084 |
| E Misc.Mat'ls (1% approx. items 3 & 4) | | | | | | | | | | | | | | 20,544 |
| Total Other Pipeline Materials | | | | | | | | | | | | | | 171,628 |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

EMERSON LATERAL LINE - 48 MILES - 24"

| Item | Unit | Quantity | Unit Cost | Source | Amount | Duty | Sales Tax | Duty Rebate | Duty | Fr't. Rate Including + 4% Canadian & 7% U.S. increases (Pipe only) | Cost of Fr't. | Transfer Net Duty | Transfer Sales Tax | Total |
|---|------|----------|--------------|--------|--------|------|--------------|----------------|------|---|---------------------|----------------------|--------------------------|----------------|
| 5. Aerial Crossings | | | | | | | | | | | | | | - |
| 6. Measuring and Regulating Stations | Each | 1 | 90,000(+1%) | | 90,900 | | | | | | | | | 90,900 |
| 7. Communications Equipment | | | | | | | | | | | | | | <u>7,200</u> |
| 8. Subtotal (3 thru 7) | | | | | | | | | | | | | | 2,067,227 |
| 9. 40% of Full Duty | | | | | | | | | | | | 93,377 | | 93,377 |
| 10. Full Sales Taxes | | | | | | | | | | | | | 187,279 | 187,279 |
| 11. Contingencies (5% of 8) | | | | | | | | | | | | | | <u>103,361</u> |
| 12. Subtotal (1 and 8 thru 11) | | | | | | | | | | | | | | 2,492,844 |
| 13. Pipeline Installation (See details attached) | | | | | | | | | | | | | | 1,064,000 |
| 14. Contingencies (5% of 13) | | | | | | | | | | | | | | <u>53,200</u> |
| 15. Subtotal (13 and 14) | | | | | | | | | | | | | | 1,117,200 |
| 16. Engineering and Supervision (5-1/2% of 8 and 13) | | | | | | | | | | | | | | 172,217 |
| 17. Headquarters Facilities | | | | | | | | | | | | | | - |
| 18. Maintenance Facilities and Equipment | | | | | | | | | | | | | | <u>-</u> |
| 19. Subtotal (12,15,16,17 and 18) | | | | | | | | | | | | | | 3,782,261 |
| 20. Preliminary Construction Costs* | | | | | | | | | | | | | | 151,205 |
| 21. Gas for Cleaning and Purging | | | | | | | | | | | | | | 443 |
| 22. Stand-by Fee Re Sale of Bonds | | | | | | | | | | | | | | <u>-</u> |
| 23. Total (19 thru 22) | | | | | | | | | | | | | | 3,933,909 |

*Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED COST OF PIPELINE INSTALLATION

Emerson Lateral Line - 48 Miles - 24"

| | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>(\$000 Omitted) Amount</u> |
|------------------------------|-------------|-----------------|------------------|---------------------------------------|
| 1. Mainline (48 miles) | Lin.Ft. | 253,440 | 4.07 | 1,030 |
| 2. River Crossings | None | | | |
| 3. River Bridge | None | | | |
| 4. Highway & Railway Xings | Lin.Ft. | 200 | 28.00 | 6 |
| 5. Mainline Valve Assemblies | Each | 3 | 2,200.00 | 7 |
| 6. Station Valve Assemblies | None | | | |
| 7. Meter Regulating Stations | Each | 1 | 6,000.00 | 6 |
| 8. Testing | Lin.Ft. | 253,440 | .05 | 13 |
| 9. Connection to 30" Line | Lot | | | <u>2</u> |
| Total | | | | <u><u>1,064</u></u> |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS - COMPRESSOR STATIONS (\$000)

ESTIMATED SCHEDULE OF CONSTRUCTION

PLAN 1 AND PLAN 2

| Station No. | Type Of Compressors | 1957 | | | 1958 | | | 1959 | | | 1960 | | | 1961 | | | 1962 | | |
|--------------------|------------------------|------|--------------|-------|------|--------------|-------|------|--------------|-------|------|--------------|--------|------|---------------|-------|------|---------------|-------|
| | | U | HP | Cost | U | HP | Cost | U | HP | Cost | U | HP | Cost | U | HP | Cost | U | HP | Cost |
| 1 | Reciprocating | | | | 1 | 2,500N | 949 | | | | 1 | 2,500E | 889 | | | | 1 | 2,500E | 889 |
| 2 | Centrifugal | 1 | 7,600N | 3,607 | | | | | | | 1 | 7,600E | 2,700 | | | | | | |
| 4 | Centrifugal | | | | | | | | | | 1 | 7,600N | 3,607 | | | | 1 | 7,600E | 2,700 |
| 6 | Centrifugal | | | | 1 | 7,600N | 3,607 | | | | | | | 1 | 7,600E | 2,700 | | | |
| 8 | Centrifugal | | | | | | | | | | 1 | 7,600N | 3,531 | | | | 1 | 7,600E | 2,639 |
| 10 | Reciprocating | 2 | 2,500N | 2,169 | | | | 1 | 2,500E | 869 | | | | 1 | 2,500E | 869 | | | |
| 16 | Reciprocating | | | | | | | 2 | 2,500N | 2,169 | 1 | 2,500E | 869 | | | | 1 | 2,500E | 869 |
| 17 | Reciprocating | | | | 2 | 2,500N | 2,169 | | | | | | | 1 | 2,500E | 869 | 1 | 2,500E | 869 |
| 18 | Reciprocating | | | | | | | | | | | | | 2 | 2,500N | 2,169 | 1 | 2,500E | 869 |
| 19 | Reciprocating | | | | | | | | | | 2 | 2,000N | 1,743 | | | | | | |
| | Total Cost | | | 5,776 | | | 6,725 | | | 3,038 | | | 13,339 | | | 6,607 | | | 8,835 |
| Total HP installed | | | | | | | | | | | | | | | | | | | |
| | Centrifugal | | 7,600 | | | 7,600 | | | - | | | 22,800 | | | 7,600 | | | 15,200 | |
| | Reciprocating | | <u>5,000</u> | | | <u>7,500</u> | | | <u>7,500</u> | | | <u>9,000</u> | | | <u>10,000</u> | | | <u>10,000</u> | |
| | Total | | 12,600 | | | 15,100 | | | 7,500 | | | 31,800 | | | 17,600 | | | 25,200 | |
| | Total accumulated | | | | | 27,700 | | | 35,200 | | | 67,000 | | | 84,600 | | | 109,800 | |

U - Number of units
HP - Horsepower installed, each unit
N - New station
E - Existing station

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS - COMPRESSOR STATIONS (\$000)

COST FOR NEW AND EXISTING STATIONS WITH 1 OR MORE UNITS

PLAN 1 AND PLAN 2

| | 2,500 HP Reciprocating Units | | | | 2 - 2,000 HP Reciprocating Units Installed in New Station | 7,600 HP Centrifugal Unit | |
|---|------------------------------|-----------|-----------|----------------------------------|--|-----------------------------|----------------------------------|
| | Installed in New Station | | | Installed in Existing Station | | Installed in New Station | Installed in Existing Station |
| | 1 Unit | 2 Units | 3 Units | 1 Unit | | | |
| 1. Labor and Material | 700 | 1,700 | 2,438 | 700 | 1,360 | 2,797 | 2,128 |
| 2. 40% of Full Duty | 35 | 85 | 120 | 35 | 68 | 144 | 106 |
| 3. Full Dominion Sales Tax | 60 | 145 | 203 | 60 | 116 | 236 | 182 |
| 4. Contingencies (5% of 80% of 1) | 28 | 68 | 97 | 28 | 54 | 112 | 85 |
| 5. Engineering and Supervision (6-1/2% of 1) | 46 | 111 | 158 | 46 | 85 | 182 | 138 |
| 6. Housing Equity | <u>60</u> | <u>60</u> | <u>60</u> | <u>-</u> | <u>60</u> | <u>60</u> | <u>-</u> |
| 7. Subtotal (1 thru 6) | 929 | 2,169 | 3,076 | 869 | 1,743 | 3,531 | 2,639 |
| 8. Saskatchewan Sales Tax (Where applicable - 3% Rate) | <u>20</u> | <u>-</u> | <u>-</u> | <u>20</u> | <u>-</u> | <u>76</u> | <u>61</u> |
| 9. Total (7 and 8) | 949 | 2,169 | 3,076 | 889 | 1,743 | 3,607 | 2,700 |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST SUMMARY OF CROWN CORPORATION SECTION OF PIPELINE

PLAN 1 AND PLAN 2

| | Construction Year Ending October 31 | | | | | | | | |
|---|-------------------------------------|----------------|----------------|---------------|-------------|-------------|-------------|-------------|---------------|
| | 1956 | 1957 | 1958 | Subtotal | 1959 | 1960 | 1961 | 1962 | Total |
| | | (310 M1 - 30") | (365 M1 - 30") | Thru 1958 | | | | | |
| | | | | (See Note) | | | | | |
| Manitoba-Ontario Border to Kapuskasing | | | | | | | | | |
| Construction Costs - Direct | | | | | | | | | |
| Main Line | \$ - | \$52,112,632 | \$60,794,037 | \$112,906,669 | \$ - | \$ - | \$ - | \$ - | \$112,906,669 |
| Preliminary survey and engineering studies | | | | | | | | | |
| and construction management contract advances | 2,144,159 | - | - | 2,144,159 | - | - | - | - | 2,144,159 |
| Cost of gas for cleaning and purging | - | 4,367 | 5,141 | 9,508 | - | - | - | - | 9,508 |
| Total Main Line | 2,144,159 | 52,116,999 | 60,799,178 | 115,060,336 | - | - | - | - | 115,060,336 |
| Compressor Stations and Housing | - | - | 2,169,000 | 2,169,000 | 2,169,000 | 6,114,000 | 4,814,000 | 4,345,000 | 19,611,000 |
| Total Direct Costs | 2,144,159 | 52,116,999 | 62,968,178 | 117,229,336 | 2,169,000 | 6,114,000 | 4,814,000 | 4,345,000 | 134,671,336 |
| Interest during construction | | | | | | | | | |
| Main Line | 37,523 | 531,069 | - | 568,592 | - | - | - | - | 568,592 |
| Compressor Stations and Housing | - | - | 18,979 | 18,979 | 18,979 | 53,497 | 42,122 | 38,019 | 171,596 |
| Total Interest during construction | 37,523 | 531,069 | 18,979 | 587,571 | 18,979 | 53,497 | 42,122 | 38,019 | 740,188 |
| Total Construction Costs | | | | | | | | | |
| Main Line | 2,181,682 | 52,648,068 | 60,799,178 | 115,628,928 | - | - | - | - | 115,628,928 |
| Compressor Stations and Housing | - | - | 2,187,979 | 2,187,979 | 2,187,979 | 6,167,497 | 4,856,122 | 4,383,019 | 19,782,596 |
| Total Construction Costs | 2,181,682 | 52,648,068 | 62,987,157 | 117,816,907 | 2,187,979 | 6,167,497 | 4,856,122 | 4,383,019 | 135,411,524 |
| Period of Construction | | (5/1-10/31) | (5/1-10/31) | | (5/1-10/31) | (5/1-10/31) | (5/1-10/31) | (5/1-10/31) | |
| Interest during construction @ 3-1/2% per annum | | | | | | | | | |
| based on average of direct construction costs | | | | | | | | | |
| during period of construction (1956 on Pre- | | | | | | | | | |
| liminary survey costs based on full 6 | | | | | | | | | |
| months - 1.75%) | | | | | | | | | |
| Main Line - Current Year - % | (1.75) | (.875) | - | - | - | - | - | - | - |
| - Amount | 37,523 | 456,024 | - | 493,547 | - | - | - | - | 493,547 |
| Main Line - Prior Years - % | - | (3.50) | - | - | - | - | - | - | - |
| - Amount | - | 75,045 | - | 75,045 | - | - | - | - | 75,045 |
| Compressor Stations and Housing - % | - | - | (.875) | - | (.875) | (.875) | (.875) | (.875) | - |
| - Amount | - | - | 18,979 | 18,979 | 18,979 | 53,497 | 42,122 | 38,019 | 171,596 |
| Total Interest During Construction | \$ 37,523 | \$ 531,069 | \$ 18,979 | \$ 587,571 | \$ 18,979 | \$ 53,497 | \$ 42,122 | \$ 38,019 | \$ 740,188 |

Note: Represents the estimated total cost to complete the Crown Corporation Section of the pipeline and the compression equipment required to be installed on such section to permit the pipeline to operate at its initially designed capacity.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS - COMPRESSOR STATIONS (\$000)

CROWN CORPORATION SECTION - MANITOBA-ONTARIO BORDER TO KAPUSKASING

PLAN 1 AND PLAN 2

| Station No. | Type of Compressors | Estimated Schedule Of Construction | | | | | | | | | | | |
|----------------|------------------------|------------------------------------|-----------|-------------|----------|-----------|-------------|----------|-----------|-------------|----------|-----------|-------------|
| | | 1958 | | | 1959 | | | 1960 | | | 1961 | | |
| | | <u>U</u> | <u>HP</u> | <u>Cost</u> | <u>U</u> | <u>HP</u> | <u>Cost</u> | <u>U</u> | <u>HP</u> | <u>Cost</u> | <u>U</u> | <u>HP</u> | <u>Cost</u> |
| 11 | Reciprocating | | | | | | | | | | 3 | 2,500N | 3,076 |
| 12 | Reciprocating | | | | 2 | 2,500N | 2,169 | 1 | 2,500E | 869 | | | |
| 13 | Reciprocating | | | | | | | 3 | 2,500N | 3,076 | | | |
| 14 | Reciprocating | 2 | 2,500N | 2,169 | | | | | | | 1 | 2,500E | 869 |
| 15 | Reciprocating | | | | | | | 2 | 2,500N | 2,169 | 1 | 2,500E | 869 |
| | Total Cost | | | 2,169 | | | 2,169 | | | 6,114 | | | 4,814 |
| | Total HP installed | | 5,000 | | | 5,000 | | | 15,000 | | | 12,500 | |
| | Total HP accumulated | | | | | 10,000 | | | 25,000 | | | 37,500 | |

U - Number of units
HP - Horsepower installed, each unit
N - New Station
E - Existing station

Cost For New And Existing Stations With 1 Or More Units

2,500 HP Reciprocating Units

| | Installed in New Station | | Installed in Existing Station |
|--|-----------------------------|----------------|----------------------------------|
| | <u>2 Units</u> | <u>3 Units</u> | <u>1 Unit</u> |
| 1. Labor and Material | 1,700 | 2,438 | 700 |
| 2. 40% of Full Duties | 85 | 120 | 35 |
| 3. Full Dominion Sales Tax | 145 | 203 | 60 |
| 4. Contingencies (5% of 80% of 1) | 68 | 97 | 28 |
| 5. Engineering and Supervision (6-1/2% of 1) | 111 | 158 | 46 |
| 6. Housing Equity | 60 | 60 | - |
| 7. Total (1 thru 6) | 2,169 | 3,076 | 869 |

| Item | Unit | Quantity | Unit Cost | Source | Amount | Duty | Sales Tax | Duty Rebate | Net Duty | Frt. Rate Includes 4% Canadian & 7% U.S. Frt. increase (Pipe only) | Cost of Frt. | Transfer Net Duty | Transfer Sales Tax | Total |
|---|-----------|----------|-----------|---------|------------|---------|-----------|-------------|----------|--|--------------|-------------------|--------------------|------------------|
| 1. Land & Land Rights | | | | | | | | | | | | | | |
| (a) Pipeline | Miles | 310 | 421 | | 130,510 | | | | | | | | | 130,510 |
| (b) Comp. & Meter Sta. Sites | Acres | 255 | 100 | | 25,500 | | | | | | | | | 25,500 |
| Total | | | | | 156,010 | | | | | | | | | 156,010 |
| 2. Main Line and Laterals | | | | | | | | | | | | | | |
| 3. Line Pipe | | | | | | | | | | | | | | |
| (a) 30" x 3/8" 5L x 52 ML | Tons | 19,090 | 190.85 | Welland | 3,643,327 | | Incl. | | | 35.15 | 671,014 | | | 4,314,341 |
| (b) 30" x 3/8" 5L x 52 ML | Tons | 29,800 | 162.43 | Rep. | 4,840,414 | 726,062 | 556,648 | 435,637 | 290,425 | 48.80 | 1,454,240 | (290,425) | (556,648) | 6,294,654 |
| (c) 30" x 3/8" 5L x 52 ML | Tons | 34,143 | 170.50 | England | 5,821,382 | 582,138 | 634,952 | 342,283 | 232,355 | 37.26 | 1,272,168 | (232,355) | (634,952) | 7,093,550 |
| (d) 30" x 3/8" 5L x 52 ML | Tons | 14,046 | 168.43 | Mlwke. | 2,374,189 | 356,128 | 272,271 | 213,676 | 142,452 | 38.08 | 536,776 | (142,452) | (272,271) | 2,910,965 |
| (e) 30" x 1/2" 5L x 52 Sta. & River | Tons | 379 | 167.47 | Mlwke. | 63,471 | 9,521 | 7,279 | 5,713 | 3,508 | 38.08 | 14,432 | (3,508) | (7,279) | 77,903 |
| (f) 6-5/8" x 1/2" Gr.B Blow Off | Tons | 6.5 | 159.53 | Mlwke. | 1,037 | 233 | 127 | | 233 | 38.08 | 248 | (233) | (127) | 1,285 |
| (g) 6-5/8" x .432 Gr.B Blow Off | Tons | 1.5 | 166.67 | Mlwke. | 250 | 56 | 31 | | 56 | 38.08 | 57 | (56) | (31) | 307 |
| (h) 3-1/2" x .300 Gr.B Vents | Tons | 2.9 | 181.87 | Mlwke. | 527 | 119 | 65 | | 119 | 38.08 | 110 | (119) | (65) | 637 |
| Total | | | | | 16,744,597 | | 1,471,373 | | 669,948 | | 3,943,045 | (669,948) | (1,471,373) | 20,693,642 |
| 4. Other Pipeline Materials | | | | | | | | | | | | | | |
| A Coating Materials | | | | | | | | | | | | | | |
| (a) Primer 77 Gal./Mi./10#/Gal. | Imp. Gal. | 23,870 | 1.50 | | 35,805 | | 3,580 | | | 16.20 | 1,933 | | (3,580) | 37,738 |
| (b) Enamel 21T/Mi. | Tons | 6,510 | 69 | | 449,190 | | 44,919 | | | 16.20 | 105,462 | | (44,919) | 554,652 |
| (c) Glass Wrapper 472.5 Sq./Mi. | Sq. | 146,475 | 1.03 | | 150,869 | | 15,087 | | | | Incl. | | (15,087) | 150,869 |
| (d) Kraft Wrapper | Sq. | 146,475 | .24 | | 35,154 | | 3,515 | | | 16.20 | 1,568 | | (3,515) | 36,742 |
| Subtotal | | | | | 671,018 | | 67,101 | | | | 108,983 | | (67,101) | 780,001 |
| B Road & Railway Xing Materials | | | | | | | | | | | | | | |
| (a) Casing 34" x 3/8" | Lin. Ft. | 14,535 | 10.23 | | 148,693 | 22,304 | 17,100 | 13,322 | 3,922 | 33.55 | 33,014 | (8,922) | (17,100) | 181,707 |
| (b) Seals Incl. F.D.St. | Each | 56 | 51.50 | | 2,884 | Incl. | Incl. | | | Incl. | | | | 2,884 |
| (c) Insulators " | Each | 112 | 44.00 | | 4,928 | Incl. | Incl. | | | Incl. | | | | 4,928 |
| (d) Cradles " | Each | 56 | 24.50 | | 1,372 | Incl. | Incl. | | | Incl. | | | | 1,372 |
| Subtotal | | | | | 157,877 | | 17,100 | | 8,922 | | 33,014 | (8,922) | (17,100) | 190,891 |
| C Valves & Fittings | | | | | | | | | | | | | | |
| (a) Mainline Valve Assemblies | Each | 19 | 14,400 | | 273,600 | | | | | | | | | |
| (b) Station Valve Assemblies | Each | 3 | 41,037 | | 123,111 | | | | | | | | | 426,211 |
| (c) Sales Valve Assemblies | Each | 4 | 4,000 | | 16,000 | | | | | | | | | 6,480 |
| (d) Fittings for Drips | Lot | 3 | 4,500 | | 13,500 | | | | | | | | | |
| (e) Fittings for River Xings | Lot | None | | | - | | | | | | | | | |
| (f) Misc. Fittings (1% (a-e)) | Lot | | | | 4,262 | | | | | | | | | Includes Freight |
| Subtotal | | | | | 430,473 | | 19,406 | | 7,600 | | 6,480 | (7,600) | (19,406) | 436,953 |
| D Anchors | | | | | | | | | | | | | | |
| (a) 6,000# Weights | Each | 15,615 | 90 | | 1,405,350 | | Incl. | | Incl. | | Incl. | | | 1,405,350 |
| Subtotal | | | | | 2,664,718 | | 103,607 | | 16,522 | | 148,477 | (16,522) | (103,607) | 2,813,195 |
| E Misc. Matls. (1% approx. items 3 & 4) | | | | | | | | | | | | | | 256,670 |
| Total Other Pipeline Materials | | | | | | | | | | | | | | 3,069,865 |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

WEST HALF OF CROWN CENTRAL SECTION - 310 MILES - 30"

| Item | Unit | Quantity | Unit Cost | Source | Amount | Duty | Sales Tax | Duty Rebate | Net Duty | Fr't. Rate Includes 4% Canadian & 7% U.S. Fr't. increase (Pipe only) | Cost of Fr't. | Transfer Net Duty | Transfer Sales Tax | Total |
|--|-------|----------|--------------|--------|---------|------|-----------|-------------|----------|--|---------------|-------------------|--------------------|------------------|
| 5. Aerial Crossings | | | | | | | | | | | | | | - |
| 6. Measuring and Regulating Stations | Lot | 4 | 100,000(+1%) | | 404,000 | | Incl. | | Incl. | | Incl. | | | 404,000 |
| 7. Communications Equipment | Miles | 310 | 150 | | 46,500 | | | | | | | | | <u>46,500</u> |
| 8. Subtotal (3 thru 7) | | | | | | | | | | | | | | 24,214,007 |
| 9. 40% of Full Duty | | | | | | | | | | | | 686,470 | | 686,470 |
| 10. Full Sales Taxes | | | | | | | | | | | | | 1,574,980 | 1,574,980 |
| 11. Contingencies (5% of 8) | | | | | | | | | | | | | | <u>1,210,700</u> |
| 12. Subtotal (1 and 8 thru 11) | | | | | | | | | | | | | | 27,842,167 |
| 13. Pipeline Installation (See details attached) | | | | | | | | | | | | | | 20,759,000 |
| 14. Contingencies (5% of 13) | | | | | | | | | | | | | | <u>1,037,950</u> |
| 15. Subtotal (13 and 14) | | | | | | | | | | | | | | 21,796,950 |
| 16. Engineering and Supervision (5-1/2% of 8 and 13) | | | | | | | | | | | | | | 2,473,515 |
| 17. Headquarters Facilities | | | | | | | | | | | | | | - |
| 18. Maintenance Facilities and Equipment | | | | | | | | | | | | | | <u>-</u> |
| 19. Subtotal (12,15,16,17 and 18) | | | | | | | | | | | | | | 52,112,632 |
| 20. Preliminary Construction Costs* | | | | | | | | | | | | | | - |
| 21. Gas for Cleaning and Purging | | | | | | | | | | | | | | 4,367 |
| 22. Stand-by Fee Re Sale of Bonds | | | | | | | | | | | | | | <u>-</u> |
| 23. Total (19 thru 22) | | | | | | | | | | | | | | 52,116,999 |

*Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED COST OF PIPELINE INSTALLATION

West Half of Crown Central Section - 310 Miles - 30"

| | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>(\$000 Omitted) Amount</u> |
|------------------------------|-------------|-----------------|------------------|---------------------------------------|
| 1. Mainline (310 miles) | Lin. Ft. | 1,636,800 | 11.64 | 19,052 |
| 2. River Crossings | Lin. Ft. | 160 | 500.00 | 80 |
| 3. River Bridge | Lot | 1 | 1,250,000.00 | 1,250 |
| 4. Highway & Railway Xings | Lin. Ft. | 5,016 | 35.01 | 175 |
| 5. Mainline Valve Assemblies | Each | 20 | 2,450.00 | 49 |
| 6. Station Valve Assemblies | Each | 2 | 9,600.00 | 19 |
| 7. Meter Regulating Stations | Each | 5 | 10,301.00 | 52 |
| 8. Testing | Lin. Ft. | 1,636,800 | .05 | <u>82</u> |
| Total | | | | <u>20,759</u> |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

EAST HALF OF CROWN CENTRAL SECTION - 365 MILES - 30"

| <u>Item</u> | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>Source</u> | <u>Amount</u> | <u>Duty</u> | <u>Sales Tax</u> | <u>Duty Rebate</u> | <u>Net Duty</u> | <u>Frt.Rate Includes 4% Canadian & 7% U.S. Frt.increase (Pipe only)</u> | <u>Cost of Frt.</u> | <u>Transfer Net Duty</u> | <u>Transfer Sales Tax</u> | <u>Total</u> |
|------------------------------------|-------------|-----------------|------------------|---------------|---------------|-------------|------------------|--------------------|-----------------|---|---------------------|--------------------------|---------------------------|------------------|
| 1. Land & Land Rights | | | | | | | | | | | | | | |
| (a) Pipeline | Miles | 365 | 421 | | 153,665 | | | | | | | | | 153,665 |
| (b) Comp.& Meter Sta.Sites | Acres | 200 | 100 | | 20,000 | | | | | | | | | 20,000 |
| Subtotal | | | | | 173,665 | | | | | | | | | 173,665 |
| 2. Main Line and Laterals | | | | | | | | | | | | | | |
| 3. Line Pipe | | | | | | | | | | | | | | |
| (a) 30" x 3/8" 5L x 52 ML | Tons | 39,155 | 170.50 | England | 6,675,928 | 667,593 | 734,352 | 400,556 | 267,037 | 34.40 | 1,346,932 | (267,037) | (734,352) | 8,022,860 |
| (b) 30" x 3/8" 5L x 52 ML | Tons | 34,580 | 190.85 | Welland | 6,599,593 | | Incl. | | | 34.40 | 1,189,552 | | | 7,789,145 |
| (c) 30" x 3/8" 5L x 52 ML | Tons | 29,651 | 168.43 | Mlwke. | 4,993,518 | 749,026 | 572,658 | 449,416 | 299,610 | 51.74 | 1,534,143 | (299,610) | (572,658) | 6,527,661 |
| (d) 30" x 3/8" 5L x 52 ML | Tons | 10,963 | 172.43 | Houston | 1,890,350 | 283,553 | 216,798 | 170,131 | 113,422 | 71.86 | 787,801 | (113,422) | (216,798) | 2,678,151 |
| (e) 30" x 1/2" 5L x 52 Sta.& River | Tons | 463 | 167.47 | Mlwke. | 77,539 | 16,988 | 9,453 | | 16,988 | 51.74 | 23,956 | (16,988) | (9,453) | 101,495 |
| (f) 8-5/8" x 1/2" Gr.B Blow Off | Tons | 8 | 159.53 | Mlwke. | 1,276 | 287 | 156 | | 287 | 51.74 | 414 | (287) | (156) | 1,690 |
| (g) 6-5/8" x .432 Gr.B Blow | Tons | 1.8 | 166.67 | Mlwke. | 300 | 68 | 37 | | 68 | 51.74 | 93 | (68) | (37) | 393 |
| (h) 3-1/2" x .300 Gr.B Vents | Tons | 3.5 | 181.87 | Mlwke. | 637 | 143 | 78 | | 143 | 51.74 | 181 | (143) | (78) | 818 |
| Total | | | | | 20,239,141 | | 1,533,532 | | 697,555 | | 4,883,072 | (697,555) | (1,533,532) | 25,122,213 |
| 4. Other Pipeline Materials | | | | | | | | | | | | | | |
| A Costing Materials | | | | | | | | | | | | | | |
| (a) Primer | Imp.Gal. | 28,105 | 1.50 | | 42,158 | | 4,216 | | | 16.85 | 2,367 | | (4,216) | 44,525 |
| (b) Enamel | Tons | 7,665 | .69 | | 528,885 | | 52,888 | | | 16.85 | 129,155 | | (52,888) | 658,040 |
| (c) Glass Wrapper | Sq. | 172,463 | 1.03 | | 177,637 | | 17,764 | | | Incl. | | | (17,764) | 177,637 |
| (d) Kraft Wrapper | Sq. | 172,463 | .24 | | 41,391 | | 4,139 | | | 16.85 | 1,955 | | (4,139) | 43,346 |
| Freight | Tons | 11,255 | | | 790,071 | | 79,007 | | | | 133,477 | | (79,007) | 923,548 |
| B Road & Railway Xing Materials | | | | | | | | | | | | | | |
| (a) 34" x 3/8" Casing | Lin.Feet | 17,765 | 10.23 | | 181,736 | 27,260 | 20,900 | 16,356 | 10,904 | 30.00 | 35,880 | (10,904) | (20,900) | 217,616 |
| (b) Seals | Each | 68 | 51.50 | | 3,502 | | Incl. | | | | | | | 3,502 |
| (c) Insulators | Each | 136 | 44.00 | | 5,984 | | Incl. | | | | | | | 5,984 |
| (d) Cradles | Each | 68 | 24.50 | | 1,666 | | Incl. | | | | | | | 1,666 |
| Subtotal | | | | | 192,888 | | 20,900 | | 10,904 | 30.00 | 35,880 | (10,904) | (20,900) | 228,768 |
| C Valves & Fittings | | | | | | | | | | | | | | |
| (a) Mainline Valve Assemblies | Each | 27 | 14,400 | | 388,800 |) | |) | | | | | | |
| (b) Station Valve Assemblies | Lot | 2 | 41,037 | | 82,074 |) | |) | | | | | | |
| (c) Sales Valve Assemblies | Lot | 7 | 4,000 | | 28,000 |) Est. | |) Est. | | Est. | | | | 507,874 |
| (d) Fittings for Drips | Lot | 2 | 4,500 | | 9,000 |) | |) | | | | | | 7,787 |
| (e) Fittings for River Crossings | Lot | None | | | |) | |) | | | | | | Includes freight |

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS

EAST HALF OF CROWN CENTRAL SECTION - 365 MILES - 30"

| <u>Item</u> | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>Source</u> | <u>Amount</u> | <u>Duty</u> | <u>Sales Tax</u> | <u>Duty Rebate</u> | <u>Net Duty</u> | <u>Frts. Rate Includes 4% Canadian & 7% U.S. Frts. increase (Pipe only)</u> | <u>Cost of Frts.</u> | <u>Transfer Net Duty</u> | <u>Transfer Sales Tax</u> | <u>Total</u> |
|--|-------------|-----------------|------------------|---------------|---------------|-------------|------------------|--------------------|-----------------|---|----------------------|--------------------------|---------------------------|------------------|
| 5. Aerial Crossings | | | | | | | | | | | | | | - |
| 6. Measuring and Regulating Stations | Lot | 7 | 100,000(+1%) | | 707,000 | | Incl. | | Incl. | | Incl. | | | 707,000 |
| 7. Communications Equipment | Miles | 365 | 150 | | 54,750 | | | | | | | | | <u>54,750</u> |
| 8. Subtotal (3 thru 7) | | | | | | | | | | | | | | 29,580,333 |
| 9. 40% of Full Duty | | | | | | | | | | | | 717,591 | | 717,591 |
| 10. Full Sales Taxes | | | | | | | | | | | | | 1,656,758 | 1,656,758 |
| 11. Contingencies (5% of 8) | | | | | | | | | | | | | | <u>1,479,017</u> |
| 12. Subtotal (1 and 8 thru 11) | | | | | | | | | | | | | | 33,607,364 |
| 13. Pipeline Installation (See details attached) | | | | | | | | | | | | | | 23,131,000 |
| 14. Contingencies (5% of 13) | | | | | | | | | | | | | | <u>1,156,550</u> |
| 15. Subtotal (13 and 14) | | | | | | | | | | | | | | 24,287,550 |
| 16. Engineering and Supervision (5-1/2% of 8 and 13) | | | | | | | | | | | | | | 2,899,123 |
| 17. Headquarters Facilities | | | | | | | | | | | | | | - |
| 18. Maintenance Facilities and Equipment | | | | | | | | | | | | | | <u>-</u> |
| 19. Subtotal (12,15,16,17 and 18) | | | | | | | | | | | | | | 60,794,037 |
| 20. Preliminary Construction Costs* | | | | | | | | | | | | | | - |
| 21. Gas for Cleaning and Purging | | | | | | | | | | | | | | 5,141 |
| 22. Stand-by Fee Re Sale of Bonds | | | | | | | | | | | | | | <u>-</u> |
| 23. Total (19 thru 22) | | | | | | | | | | | | | | 60,799,178 |

*Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED COST OF PIPELINE INSTALLATION

East Half of Crown Central Section - 365 Miles - 30"

| | <u>Unit</u> | <u>Quantity</u> | <u>Unit Cost</u> | <u>(\$000 Omitted) Amount</u> |
|------------------------------|-------------|-----------------|------------------|---------------------------------------|
| 1. Mainline (365 miles) | Lin. Ft. | 1,927,200 | 11.64 | 22,433 |
| 2. River Crossings | Lin. Ft. | 340 | 500.00 | 170 |
| 3. River Bridge | None | | | |
| 4. Highway & Railway Xings | Lin. Ft. | 8,184 | 35.01 | 287 |
| 5. Mainline Valve Assemblies | Each | 22 | 2,450.00 | 54 |
| 6. Station Valve Assemblies | Each | 3 | 9,600.00 | 29 |
| 7. Meter Regulating Stations | Each | 6 | 10,310.00 | 62 |
| 8. Testing | Lin. Ft. | 1,927,200 | .05 | <u>96</u> |
| Total | | | | <u><u>23,131</u></u> |

